

**DOP 4 - 020 - 22/0438 - 2022/01**

(033) Injection system EJOT Multifix PSF+ / Sormat ITH-Pe, EJOT Multifix PSF+ Tropical/ Sormat ITH-Te, EJOT Multifix PSF+ Winter

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# Leistungserklärung

Nr.: 4 - 020 - 22/0438 - 2022/01

DE

# EJOT®

## b) Brandschutz (BWR 2)

Wesentliche Merkmale	Leistungswerte
Brandverhalten	Die Dübel erfüllen die Anforderungen der Klasse A1

## c) Hygiene, Gesundheit und Umweltschutz (BWR 3)

Wesentliche Merkmale	Leistungswerte

## d) Schallschutz (BWR 5)

Wesentliche Merkmale	Leistungswerte

## e) Energieeinsparung und Wärmeschutz (BWR 6)

Wesentliche Merkmale	Leistungswerte

## f) Nachhaltige Nutzung der natürlichen Ressourcen (BWR 7)

Wesentliche Merkmale	Leistungswerte

Die Leistung des vorstehenden Produkts entspricht der erklärten Leistung/den erklärten Leistungen. Für die Erstellung der Leistungserklärung im Einklang mit der Verordnung (EU) Nr. 305/2011 ist allein der oben genannte Hersteller verantwortlich.

Unterzeichnet für den Hersteller und im Namen des Herstellers von:

**Dr. Jens Weber**

(Name)

**Bad Laasphe, 16.09.2022**

(Ort und Datum der Ausstellung)



(Unterschrift)



# Declaration of Performance

No 4 - 020 - 22/0438 - 2022/01

EN

# EJOT®

## b) Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Anchorage satisfy requirements for Class A1

## c) Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance

## d) Protection against noise (BWR 5)

Essential characteristic	Performance

## e) Energy economy and heat retention (BWR 6)

Essential characteristic	Performance

## f) Sustainable use of natural resources (BWR 7)

Essential characteristic	Performance

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

**Dr. Jens Weber**

(Name)

**Bad Laasphe, 16.09.2022**

(Place and date of issue)



(Signature)



# ДЕКЛАРАЦИЯ ЗА ЕКСПЛОАТАЦИОННИ ПОКАЗАТЕЛИ

№ 4 - 020 - 22/0438 - 2022/01

BG

# EJOT®

## b) Безопасност в случай на пожар (BWR 2)

Основни характеристики	Показатели
Реакция при пожар	Закрепванията отговарят на изискванията за клас A1

## c) Хигиена, здраве и околна среда (BWR 3)

Основни характеристики	Показатели

## d) Защита от шум (BWR 5)

Основни характеристики	Показатели

## e) Икономия на енергия и запазване на топлината (BWR 6)

Основни характеристики	Показатели

## f) Устойчиво използване на природните ресурси (BWR 7)

Основни характеристики	Показатели

Експлоатационните показатели на продукта, посочени по-горе, са в съответствие с декларираните експлоатационни показатели. Настоящата декларация за експлоатационни показатели се издава в съответствие с Регламент (ЕС) № 305/2011, като отговорността за нея се носи изцяло от посочения по-горе производител.

Подписано за и от името на производителя от:

**Dr. Jens Weber**

(Име)

**Bad Laasphe, 16.09.2022**

(Място и Дата)



(Подпис)





# PROHLÁŠENÍ O VLASTNOSTECH

č. 4 - 020 - 22/0438 - 2022/01

CZ

# EJOT®

## b) Bezpečnost při požáru (BWR 2)

základní charakteristiky	vlastnosti výrobku
Reakce na oheň	Kotvení splňuje požadavky pro třídu A1

## c) Hygiena, zdraví a životní prostředí (BWR 3)

základní charakteristiky	vlastnosti výrobku

## d) Ochrana proti hluku (BWR 5)

základní charakteristiky	vlastnosti výrobku

## e) Úspora energie a zadržování tepla (BWR 6)

základní charakteristiky	vlastnosti výrobku

## f) Udržitelné využívání přírodních zdrojů (BWR 7)

základní charakteristiky	vlastnosti výrobku

Vlastnosti výše uvedeného výrobku jsou ve shodě se souborem deklarovaných vlastností. Toto prohlášení o vlastnostech se v souladu s nařízením (EU) č. 305/2011 vydává na výhradní odpovědnost výrobce uvedeného výše.

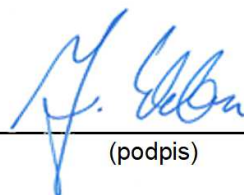
Podepsáno za výrobce a jeho jménem:

**Dr. Jens Weber**

(jméno)

**Bad Laasphe, 16.09.2022**

(místo a datum vydání)



(podpis)



# YDEEVNEDEKLARATION

Nr.: 4 - 020 - 22/0438 - 2022/01

DK

# EJOT®

## b) Sikkerhed ved brand (BWR 2)

Væsentlige egenskaber	Ydelse
Reaktioner på brand	Forankringer opfylder kravene til klasse A1

## c) Hygiejne, sundhed og miljø (BWR 3)

Væsentlige egenskaber	Ydelse

## d) Beskyttelse mod støj (BWR 5)

Væsentlige egenskaber	Ydelse

## e) Energibesparelser og varmebinding (BWR 6)

Væsentlige egenskaber	Ydelse

## f) Bæredygtig udnyttelse af naturressourcer (BWR 7)

Væsentlige egenskaber	Ydelse

Ydeevnen for den vare, der er anført ovenfor, er i overensstemmelse med den deklarerede ydeevne. Denne ydeevnedeklaration er udarbejdet i overensstemmelse med forordning (EU) nr. 305/2011 på eneansvar af den fabrikant, der er anført ovenfor.

Underskrevet for fabrikanten og på dennes vegne af:

**Dr. Jens Weber**

(navn)

**Bad Laasphe, 16.09.2022**

(sted og dato for udstedelse)



(underskrift)



# TOIMIVUSDEKLARATSIOON

nr 4 - 020 - 22/0438 - 2022/01

EE

# EJOT®

## b) Ohutus tulekahju korral (BWR 2)

Põhiomadused	Toimivus
Reaktsioon tulekahjule	Kinnituspunktid vastavad klassi A1 nõuetele

## c) Hügieen, tervis ja keskkond (BWR 3)

Põhiomadused	Toimivus

## d) Kaitse müra eest (BWR 5)

Põhiomadused	Toimivus

## e) Energiasääst ja soojapidavus (BWR 6)

Põhiomadused	Toimivus

## f) Loodusvarade säästev kasutamine (BWR 7)

Põhiomadused	Toimivus

Eespool kirjeldatud toote toimivus vastab deklareeritud toimivusele. Käesolev toimivusdeklaratsioon on välja antud kooskõlas määrusega (EL) nr 305/2011 eespool nimetatud tootja ainuvastutusel.

Tootja poolt ja nimel allkirjastanud:

**Dr. Jens Weber**

(Nimi)

**Bad Laasphe, 16.09.2022**

(Koht ja kuupäev)



(Allkiri)



# DECLARACIÓN DE PRESTACIONES

no 4 - 020 - 22/0438 - 2022/01

ES

# EJOT®

## b) Seguridad en caso de incendio (BWR 2)

Características esenciales	Prestaciones
Reacción al fuego	Los anclajes cumplen los requisitos de la clase A1

## c) Higiene, salud y medio ambiente (BWR 3)

Características esenciales	Prestaciones

## d) Protección contra el ruido (BWR 5)

Características esenciales	Prestaciones

## e) Ahorro de energía y retención del calor (BWR 6)

Características esenciales	Prestaciones

## f) Uso sostenible de los recursos naturales (BWR 7)

Características esenciales	Prestaciones

Las prestaciones del producto identificado anteriormente son conformes con el conjunto de prestaciones declaradas. La presente declaración de prestaciones se emite, de conformidad con el Reglamento (UE) no 305/2011, bajo la sola responsabilidad del fabricante arriba identificado.

Firmado por y en nombre del fabricante por:

**Dr. Jens Weber**

(nombre)

**Bad Laasphe, 16.09.2022**

(lugar y fecha de emisión)



(firma)





# SUORITUSTASOILMOITUS

Nro 4 - 020 - 22/0438 - 2022/01

FI

# EJOT®

## b) Turvallisuus tulipalon sattuessa (BWR 2)

Perusominaisuudet	Tuotteen suoritustaso
Reagointi tulipaloon	Kiinnityspisteet täyttävät A1-luokan vaatimukset

## c) Hygienia, terveys ja ympäristö (BWR 3)

Perusominaisuudet	Tuotteen suoritustaso

## d) Suojaus melua vastaan (BWR 5)

Perusominaisuudet	Tuotteen suoritustaso

## e) Energiansäästö ja lämmöntalteenotto (BWR 6)

Perusominaisuudet	Tuotteen suoritustaso

## f) Luonnonvarojen kestävä käyttö (BWR 7)

Perusominaisuudet	Tuotteen suoritustaso

Edellä yksilöidyn tuotteen suoritustaso on ilmoitettujen suoritustasojen joukon mukainen. Tämä suoritustasoilmoitus on asetuksen (EU) N:o 305/2011 mukaisesti annettu edellä ilmoitetun valmistajan yksinomaisella vastuulla.

Valmistajan puolesta allekirjoittanut:

**Dr. Jens Weber**

(nimi)

**Bad Laasphe, 16.09.2022**

(paikka ja päivämäärä)



(allekirjoitus)



# DÉCLARATION DES PERFORMANCES

No 4 - 020 - 22/0438 - 2022/01

FR

# EJOT®

## b) Sécurité en cas d'incendie (REB 2)

Caractéristiques essentielles	Performances du produit
Réaction au feu	Les ancrages répondent aux exigences de la classe A1

## c) Hygiène, santé et environnement (REB 3)

Caractéristiques essentielles	Performances du produit

## d) Protection contre le bruit (REB 5)

Caractéristiques essentielles	Performances du produit

## e) Économie d'énergie et rétention de la chaleur (REB 6)

Caractéristiques essentielles	Performances du produit

## f) Utilisation durable des ressources naturelles (REB 7)

Caractéristiques essentielles	Performances du produit

Les performances du produit identifié ci-dessus sont conformes aux performances déclarées. Conformément au règlement (UE) no 305/2011, la présente déclaration des performances est établie sous la seule responsabilité du fabricant mentionné ci-dessus.

Signé pour le fabricant et en son nom par:

**Dr. Jens Weber**

(Nom)

**Bad Laasphe, 16.09.2022**

(Lieu et date)



(Signature)



**ΔΗΛΩΣΗ ΕΠΙΔΟΣΕΩΝ**

Αριθ. 4 - 020 - 22/0438 - 2022/01

GR

**EJOT®**

## b) Ασφάλεια σε περίπτωση πυρκαγιάς (BWR 2)

Ουσιώδη χαρακτηριστικά	Απόδοση
Αντίδραση στη φωτιά	Οι αγκυρώσεις πληρούν τις απαιτήσεις για την κατηγορία A1

## c) Υγιεινή, υγεία και περιβάλλον (BWR 3)

Ουσιώδη χαρακτηριστικά	Απόδοση

## d) Προστασία από θόρυβο (BWR 5)

Ουσιώδη χαρακτηριστικά	Απόδοση

## e) Εξοικονόμηση ενέργειας και συγκράτηση θερμότητας (BWR 6)

Ουσιώδη χαρακτηριστικά	Απόδοση

## f) Εξοικονόμηση ενέργειας και συγκράτηση θερμότητας (BWR 7)

Ουσιώδη χαρακτηριστικά	Απόδοση

Η επίδοση του προϊόντος που ταυτοποιείται ανωτέρω είναι σύμφωνη με τη (τις) δηλωθείσα(-ες) επίδοση(-εις). Η δήλωση αυτή των επιδόσεων συντάσσεται, σύμφωνα με τον κανονισμό (ΕΕ) αριθ. 305/2011, με αποκλειστική ευθύνη του κατασκευαστή που ταυτοποιείται ανωτέρω.

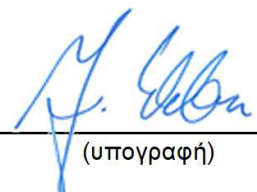
Υπογραφή για λογαριασμό και εξ ονόματος του κατασκευαστή από:

**Dr. Jens Weber**

(όνομα)

**Bad Laasphe, 16.09.2022**

(τόπος και ημερομηνία έκδοσης)

  
(υπογραφή)



# IZJAVA O SVOJSTVIMA

Br. 4 - 020 - 22/0438 - 2022/01

HR

# EJOT®

## b) Sigurnost u slučaju požara (BWR 2)

Bitne karakteristike	Svojstva
Reakcija na vatru	Sidrišta zadovoljavaju zahtjeve za klasu A1

## c) Higijena, zdravlje i okoliš (BWR 3)

Bitne karakteristike	Svojstva

## d) Zaštita od buke (BWR 5)

Bitne karakteristike	Svojstva

## e) Ušteda energije i zadržavanje topline (BWR 6)

Bitne karakteristike	Svojstva

## f) Održivo korištenje prirodnih resursa (BWR 7)

Bitne karakteristike	Svojstva

Prije utvrđeno svojstvo proizvoda u skladu je s objavljenim svojstvima. Ova izjava o svojstvima izdaje se, u skladu s Uredbom (EU) br. 305/2011, pod isključivom odgovornošću prethodno utvrđenog proizvođača.

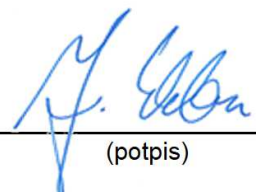
Za proizvođača i u njegovo ime potpisao:

**Dr. Jens Weber**

(ime)

**Bad Laasphe, 16.09.2022**

(Mjesto i datum izdavanja)



(potpis)





# TELJESÍTMÉNYNYILATKOZAT

Száma: 4 - 020 - 22/0438 - 2022/01

HU

# EJOT®

## b) Biztonság tűz esetén (BWR 2)

Lényeges termékjellemzők	Termék teljesítménye
Tűzre adott reakció	A rögzítések megfelelnek az A1 osztály követelményeinek

## c) Higiénia, egészség és környezet (BWR 3)

Lényeges termékjellemzők	Termék teljesítménye

## d) Zaj elleni védelem (BWR 5)

Lényeges termékjellemzők	Termék teljesítménye

## e) Energiatakarékosság és hővisszatartás (BWR 6)

Lényeges termékjellemzők	Termék teljesítménye

## f) A természeti erőforrások fenntartható használata (BWR 7)

Lényeges termékjellemzők	Termék teljesítménye

A fent azonosított termék teljesítménye megfelel a bejelentett teljesítmény(ek)nek. A 305/2011/EU rendeletnek megfelelően e teljesítménynyilatkozat kiadásáért kizárólag a fent meghatározott gyártó a felelős.

A gyártó nevében és részéről aláíró személy:

**Dr. Jens Weber**

(név)

**Bad Laasphe, 16.09.2022**

(hely és kiállítás dátuma)



(aláírás)



# DICHIARAZIONE DI PRESTAZIONE

N. 4 - 020 - 22/0438 - 2022/01

IT

# EJOT®

## b) Sicurezza in caso di incendio (BWR 2)

Caratteristiche essenziali	Prestazione
Reazione al fuoco	Gli ancoraggi soddisfano i requisiti della classe A1

## c) Igiene, salute e ambiente (BWR 3)

Caratteristiche essenziali	Prestazione

## d) Protezione contro il rumore (BWR 5)

Caratteristiche essenziali	Prestazione

## e) Economia energetica e ritenzione di calore (BWR 6)

Caratteristiche essenziali	Prestazione

## f) Uso sostenibile delle risorse naturali (BWR 7)

Caratteristiche essenziali	Prestazione

La prestazione del prodotto sopra identificato è conforme all'insieme delle prestazioni dichiarate. La presente dichiarazione di responsabilità viene emessa, in conformità al regolamento (UE) n. 305/2011, sotto la sola responsabilità del fabbricante sopra identificato.

Firmato a nome e per conto del fabbricante da:

**Dr. Jens Weber**

(nome)

**Bad Laasphe, 16.09.2022**

(luogo e data del rilascio)



(firma)



# EKSPLOATACINIŲ SAVYBIŲ DEKLARACIJA

Nr. 4 - 020 - 22/0438 - 2022/01

LT

**EJOT**<sup>®</sup>

## b) Sauga gaisro atveju (BWR 2)

Esminės charakteristikos	Eksploatacinės savybės
Reakcija į ugnį	Įtvirtinimai atitinka A1 klasės reikalavimus

## c) Higiena, sveikata ir aplinka (BWR 3)

Esminės charakteristikos	Eksploatacinės savybės

## d) Apsauga nuo triukšmo (BWR 5)

Esminės charakteristikos	Eksploatacinės savybės

## e) Energijos taupymas ir šilumos išsaugojimas (BWR 6)

Esminės charakteristikos	Eksploatacinės savybės

## f) Tvarus gamtos išteklių naudojimas (BWR 7)

Esminės charakteristikos	Eksploatacinės savybės

Nurodyto produkto eksploatacinės savybės atitinka visas deklaruotas eksploatacines savybes. Ši eksploatacinių savybių deklaracija pateikiama vadovaujantis Reglamentu (ES) Nr. 305/2011, atsakomybė už jos turinį tenka tik joje nurodytam gamintojui.

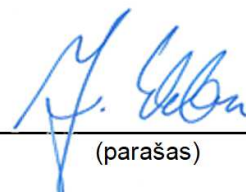
Pasirašyta (gamintojo ir jo vardu):

**Dr. Jens Weber**

(vardas)

**Bad Laasphe, 16.09.2022**

(išdavimo vieta ir data)



(parašas)



# EKSPLUATĀCIJAS ĪPAŠĪBU DEKLARĀCIJA

Nr. 4 - 020 - 22/0438 - 2022/01

LV

# EJOT®

## b) Drošība ugunsgrēka gadījumā (BWR 2)

Būtiskie raksturlielumi	Ekspluatācijas īpašības
Reakcija uz ugunsgrēku	Stiprinājumi atbilst A1 klases prasībām

## c) Higiēna, veselība un vide (BWR 3)

Būtiskie raksturlielumi	Ekspluatācijas īpašības

## d) Aizsardzība pret troksni (BWR 5)

Būtiskie raksturlielumi	Ekspluatācijas īpašības

## e) Enerģijas ekonomija un siltuma saglabāšana (BWR 6)

Būtiskie raksturlielumi	Ekspluatācijas īpašības

## f) Dabas resursu ilgtspējīga izmantošana (BWR 7)

Būtiskie raksturlielumi	Ekspluatācijas īpašības

Iepriekš norādītā izstrādājuma ekspluatācijas īpašības atbilst deklarēto ekspluatācijas īpašību kopumam. Šī ekspluatācijas īpašību deklarācija izdota saskaņā ar Regulu (ES) Nr. 305/2011, un par to ir atbildīgs vienīgi iepriekš norādītais ražotājs.

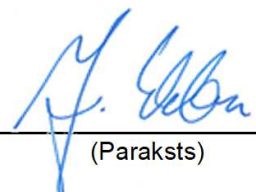
Parakstīts ražotāja vārdā:

**Dr. Jens Weber**

(Vārds)

**Bad Laasphe, 16.09.2022**

(Izsniegšanas vieta un datums)



(Paraksts)





# DIKJARAZZJONI TA' PRESTAZZJONI

Nru. 4 - 020 - 22/0438 - 2022/01

MT

# EJOT®

## b) Sigurtà fil-każ ta 'nar (BWR 2)

Karatteristiċi essenzjali	Prestazzjoni
Reazzjoni għan-nar	L-ankraġġi jissodisfaw ir-rekwiziti għall-Klassi A1

## c) Iġjene, saħħa u ambjent (BWR 3)

Karatteristiċi essenzjali	Prestazzjoni

## d) Protezzjoni kontra l-istorbju (BWR 5)

Karatteristiċi essenzjali	Prestazzjoni

## e) Ekonomija tal-enerġija u żamma tas-sħana (BWR 6)

Karatteristiċi essenzjali	Prestazzjoni

## f) Użu sostenibbli tar-riżorsi naturali (BWR 7)

Karatteristiċi essenzjali	Prestazzjoni

Il-prestazzjoni tal-prodott identifikat hawn fuq hija konformi mal-prestazzjonijiet iddikjarati. Din id-dikjarazzjoni ta' prestazzjoni hija maħruġa, skont ir-Regolament (UE) Nru 305/2011, taħt ir-responsabbiltà unika tal-manifattur identifikat hawn fuq.

Iffirmat għal u f'isem il-manifattur minn:

**Dr. Jens Weber**

(isem)

**Bad Laasphe, 16.09.2022**

(post u data tal-ħruġ)



(firma)



# PRESTATIEVERKLARING

Nr. 4 - 020 - 22/0438 - 2022/01

NL

# EJOT®

## b) Veiligheid in geval van brand (BWR 2)

Essentiële kenmerken	Prestaties
Reactie op vuur	Verankeringen voldoen aan de eisen voor klasse A1

## c) Hygiëne, gezondheid en het milieu (BWR 3)

Essentiële kenmerken	Prestaties

## d) Bescherming tegen lawaai (BWR 5)

Essentiële kenmerken	Prestaties

## e) Energiebesparing en warmtebehoud (BWR 6)

Essentiële kenmerken	Prestaties

## f) Duurzaam gebruik van natuurlijke hulpbronnen (BWR 7)

Essentiële kenmerken	Prestaties

De prestaties van het hierboven omschreven product zijn conform de aangegeven prestaties. Deze prestatieverklaring wordt in overeenstemming met Verordening (EU) nr. 305/2011 onder de exclusieve verantwoordelijkheid van de hierboven vermelde fabrikant verstrekt.

Ondertekend voor en namens de fabrikant door:

**Dr. Jens Weber**

(naam)

**Bad Laasphe, 16.09.2022**

(plaats en datum van afgifte)



(handtekening)



# DEKLARACJA WŁAŚCIWOŚCI UŻYTKOWYCH

Nr 4 - 020 - 22/0438 - 2022/01

PL

**EJOT**<sup>®</sup>

## b) Bezpieczeństwo pożarowe (BWR 2)

Zasadnicze charakterystyki	Właściwości użytkowe
Reakcja na ogień	Zakotwienia spełniają wymagania dla klasy A1

## c) Higiena, zdrowie i środowisko (BWR 3)

Zasadnicze charakterystyki	Właściwości użytkowe

## d) Ochrona przed hałasem (BWR 5)

Zasadnicze charakterystyki	Właściwości użytkowe

## e) Oszczędność energii i zatrzymywanie ciepła (BWR 6)

Zasadnicze charakterystyki	Właściwości użytkowe

## f) Zrównoważone wykorzystanie zasobów naturalnych (BWR 7)

Zasadnicze charakterystyki	Właściwości użytkowe

Właściwości użytkowe określonego powyżej wyrobu są zgodne z zestawem deklarowanych właściwości użytkowych. Niniejsza deklaracja właściwości użytkowych wydana zostaje zgodnie z Rozporządzeniem (UE) nr 305/2011 na wyłączną odpowiedzialność producenta określonego powyżej.

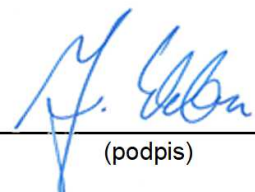
W imieniu producenta podpisał(-a):

**dr Jens Weber**

(nazwisko)

**Bad Laasphe, 16.09.2022**

(miejsce i data wydania)



(podpis)



# DECLARAÇÃO DE DESEMPENHO

N.º 4 - 020 - 22/0438 - 2022/01

PT

# EJOT®

## b) Segurança em caso de incêndio (BWR 2)

Características essenciais	Desempenho
Reacção ao fogo	As ancoragens satisfazem os requisitos da Classe A1

## c) Higiene, saúde e meio ambiente (BWR 3)

Características essenciais	Desempenho

## d) Protecção contra o ruído (BWR 5)

Características essenciais	Desempenho

## e) Economia de energia e retenção de calor (BWR 6)

Características essenciais	Desempenho

## f) Utilização sustentável dos recursos naturais (BWR 7)

Características essenciais	Desempenho

O desempenho do produto identificado acima está em conformidade com o conjunto de desempenhos declarados. A presente declaração de desempenho é emitida, em conformidade com o Regulamento (UE) n.º 305/2011, sob a exclusiva responsabilidade do fabricante identificado acima.

Assinado por e em nome do fabricante por:

**Dr. Jens Weber**

(nome)

**Bad Laasphe, 16.09.2022**

(local e data de emissão)



(assinatura)





# DECLARAȚIA DE PERFORMANȚĂ

Nr, **4 - 020 - 22/0438 - 2022/01**

RO

# EJOT®

## b) Siguranța în caz de incendiu (BWR 2)

Caracteristici esențiale	Performanța produsului
Reacția la foc	Ancorajele îndeplinesc cerințele pentru clasa A1

## c) Igiena, sănătatea și mediul (BWR 3)

Caracteristici esențiale	Performanța produsului

## d) Protecție împotriva zgomotului (BWR 5)

Caracteristici esențiale	Performanța produsului

## e) Economie de energie și păstrarea căldurii (BWR 6)

Caracteristici esențiale	Performanța produsului

## f) Utilizarea durabilă a resurselor naturale (BWR 7)

Caracteristici esențiale	Performanța produsului

Performanța produsului identificat mai sus este în conformitate cu setul de performanțe declarate. Această declarație de performanță este eliberată în conformitate cu Regulamentul (UE) nr. 305/2011, pe răspunderea exclusivă a fabricantului identificat mai sus.


Semnată pentru și în numele fabricantului de către:

**Dr. Jens Weber**

(numele)

**Bad Laasphe, 16.09.2022**

(locul și data emiterii)



(semnătură)



# PRESTANDEDEKLARATION

Nr 4 - 020 - 22/0438 - 2022/01

SE

# EJOT®

## b) Säkerhet vid brand (BWR 2)

Väsentliga egenskaper	Prestanda
Reaktion på brand	Förankringarna uppfyller kraven för klass A1

## c) Hygien, hälsa och miljö (BWR 3)

Väsentliga egenskaper	Prestanda

## d) Skydd mot buller (BWR 5)

Väsentliga egenskaper	Prestanda

## e) Energihushållning och värmehållning (BWR 6)

Väsentliga egenskaper	Prestanda

## f) Hållbar användning av naturresurser (BWR 7)

Väsentliga egenskaper	Prestanda

Prestandan för ovanstående produkt överensstämmer med den angivna prestandan. Denna prestandadeklaration har utfärdats i enlighet med förordning (EU) nr 305/2011 på eget ansvar av den tillverkare som anges ovan.

Undertecknad på tillverkarens vägnar av:

**Dr. Jens Weber**

(namn)

**Bad Laasphe, 16.09.2022**

(plats and datum)



(signatur)



# VYHLÁSENIE O PARAMETROCH

č. 4 - 020 - 22/0438 - 2022/01

SK

# EJOT®

## b) Bezpečnosť v prípade požiaru (BWR 2)

základné charakteristiky	vlastnosti výrobku
Reakcia na požiar	Kotviace prvky spĺňajú požiadavky pre triedu A1

## c) Hygiena, zdravie a životné prostredie (BWR 3)

základné charakteristiky	vlastnosti výrobku

## d) Ochrana proti hluku (BWR 5)

základné charakteristiky	vlastnosti výrobku

## e) Úspora energie a zadržiavanie tepla (BWR 6)

základné charakteristiky	vlastnosti výrobku

## f) Udržateľné využívanie prírodných zdrojov (BWR 7)

základné charakteristiky	vlastnosti výrobku

Uvedené parametre výrobku sú v zhode so súborom deklarovateľných parametrov. Toto vyhlásenie o parametroch sa v súlade s nariadením (EÚ) č. 305/2011 vydáva na výhradnú zodpovednosť uvedeného výrobcu.

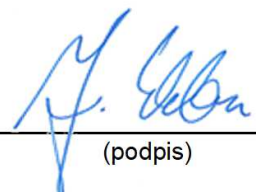
Podpísal(-a) za a v mene výrobcu:

**Dr. Jens Weber**

(meno)

**Bad Laasphe, 16.09.2022**

(miesto a dátum na výstava)



(podpis)



# IZJAVA O LASTNOSTIH

Št. 4 - 020 - 22/0438 - 2022/01

SLO

# EJOT®

## b) Varnost v primeru požara (BWR 2)

Glavne značilnosti	Zmogljivost proizvoda
Odziv na ogenj	Sidrišča izpolnjujejo zahteve za razred A1

## c) Higiena, zdravje in okolje (BWR 3) \ t

Glavne značilnosti	Zmogljivost proizvoda

## d) Zaščita pred hrupom (BWR 5) \ t

Glavne značilnosti	Zmogljivost proizvoda

## e) Varčevanje z energijo in ohranjanje toplote (BWR 6) \ t

Glavne značilnosti	Zmogljivost proizvoda

## f) Trajnostna raba naravnih virov (BWR 7) \ t

Glavne značilnosti	Zmogljivost proizvoda

Lastnosti proizvoda, navedenega zgoraj, so v skladu z navedenimi lastnostmi. Za izdajo te izjave o lastnostih je v skladu z Uredbo (EU) št. 305/2011 odgovoren izključno proizvajalec, naveden zgoraj.

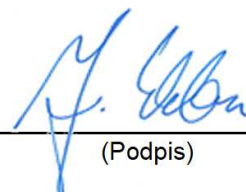
Podpisal za in v imenu proizvajalca:

**Dr. Jens Weber**

(Ime)

**Bad Laasphe, 16.09.2022**

(Kraj in datum izstavitve)



(Podpis)

## Specifications of intended use

<b>Anchorage subject to:</b>	Static and quasi-static loads M8 to M16 (with and without perforated sleeve)	
<b>Base material</b>	Masonry group b: Solid brick masonry	Annex B2 and B3.
	Masonry group c: Hollow brick masonry	Annex B2 and B3
	Masonry group d: Autoclaved Aerated Concrete	Annex B2
	Mortar strength class of the masonry M2,5 at minimum according to EN 998-2:2010. For other bricks in solid masonry and in hollow masonry or in autoclaved aerated concrete, the characteristic resistance of the anchor may be determined by job site tests according to EOTA TR 053, Edition April 2016 under consideration of the $\beta$ -factor according to Annex C1, Table C1.	
<b>Hole drilling</b>	See Annex C 5 – C 40	
<b>Use category</b>	Condition d/d: Installation and use in dry masonry Condition w/w: Installation and use in dry or wet masonry (incl. w/d installation in wet masonry and use in dry masonry)	
<b>Temperature Range:</b>	T <sub>a</sub> : - 40°C to +40°C (max. short term temperature +40°C and max. long term temperature +24°C) T <sub>b</sub> : - 40°C to +80°C (max. short term temperature +80°C and max. long term temperature +50°C)	

### Use conditions (Environmental conditions):

- Dry and wet structures (regarding injection mortar).
- Structures subject to dry internal conditions (zinc coated steel, stainless steel or high corrosion resistant steel).
- Structures subject to external atmospheric exposure (including industrial and marine environment) and to permanently damp internal condition, if no particular aggressive conditions exist (stainless steel or high corrosion resistant steel).
- Structures subject to external atmospheric exposure and to permanently damp internal condition, if other particular aggressive conditions exist (high corrosion resistant steel).

Note: Particular aggressive conditions are e.g. permanent, alternating immersion in seawater or the splash zone of seawater, chloride atmosphere of indoor swimming pools or atmosphere with extreme chemical pollution (e.g. in desulphurization plants or road tunnels where de-icing materials are used).

### Design:

- Verifiable calculation notes and drawings are prepared taking account the relevant masonry in the region of the anchorage, the loads to be transmitted and their transmission to the supports of the structure. The position of the anchor is indicated on the design drawings.
- The anchorages are designed in accordance with the EOTA TR 054, Edition April 2016, Design method A under the responsibility of an engineer experienced in anchorages and masonry work.

### Installation:


- Anchor Installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters of the site.

<b>Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry</b>	<b>Annex B 1</b>
<b>Intended use Specifications</b>	



## Brick type: Autoclaved Aerated Concrete – AAC2

**Table C3: Description**

Brick type	Autoclaved Aerated Concrete AAC2	
Bulk density [kg/dm <sup>3</sup> ]	0,35	
Compressive strength [N/mm <sup>2</sup> ]	2	
Code	EN 771-4	
Producer (country code)	e.g. Ytong (CZ)	
Brick dimensions [mm]	599 x 375 x 249	
Drilling method	Rotary drilling	

**Table C4: Installation parameter (Edge and spacing distances)**

Anchor size	Effective anchorage depth	Edge distance	Spacing	Maximum installation torque
	$h_{ef}$	$c_{min} = c_{or}$	$s_{or} = s_{min \parallel} = s_{min \perp}$	$\max T_{inst}$
		[mm]		[Nm]
<b>M8</b>	80	120	240	2
<b>M10</b>	90	135	270	
<b>M12</b>	100	150	300	
<b>M16</b>	100	150	300	

**Table C5: Displacement**

$h_{ef}$	<b>N</b>	$\delta_{N0}$	$\delta_{N\infty}$	<b>V</b>	$\delta_{V0}$	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{BR}}{1,4 \cdot \gamma_M}$	0,29	0,58	$\frac{V_{BR}}{1,4 \cdot \gamma_M}$	1,23	1,84
90		0,23	0,46		0,87	1,31
100		0,39	0,79		1,29	1,94

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Autoclaved Aerated Concrete – AAC2  
Brick description  
Installation parameters, Displacements

**Annex C 5**

**Brick type: Autoclaved Aerated Concrete – AAC2**

**Table C6: Characteristic values of resistance under tension and shear loads**

Anchor size	Effective anchorage depth	Characteristic resistance				
		Use category				
		d/d		w/d w/w		d/d w/d w/w
		40°C / 24°C	80°C / 50°C	40°C / 24°C	80°C / 50°C	For all temperature range
		$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,b}^{2)}$
	$h_{ef}$					
	[mm]					[kN]
<b>Compressive strength <math>f_b \geq 2 \text{ N/mm}^2</math></b>						
<b>M8</b>	80	0,9	0,9	0,9	0,9	1,5
<b>M10</b>	90	0,9	0,9	0,9	0,75	2,0
<b>M12</b>	100	1,5	1,5	1,2	0,9	2,5
<b>M16</b>	100	1,5	1,5	1,2	0,9	3,5

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,p} = N_{Rk,s}$ ;  $N_{Rk,b}$  according to Table C2 Annex C2; Calculation  $N_{Rk,b}$  see TR 054

<sup>2)</sup> For  $V_{Rk,b}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,b}$  and  $V_{Rk,c}$  see TR 054


Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Autoclaved Aerated Concrete – AAC2  
Characteristic values of resistance under tension and shear load

**Annex C 6**

**Brick type: Autoclaved Aerated Concrete AAC4**

**Table C7: Description**

Brick type	Autoclaved Aerated Concrete AAC4	
Bulk density [kg/dm <sup>3</sup> ]	0,50	
Compressive strength [N/mm <sup>2</sup> ]	4	
Code	EN 771-4	
Producer (country code)	e.g. Ytong (CZ)	
Brick dimensions [mm]	499 x 375 x 249	
Drilling method	Rotary drilling	

**Table C8: Installation parameter (Edge and spacing distances)**

Anchor size	Effective anchorage depth	Edge distance	Spacing	Maximum installation torque
	$h_{ef}$	$c_{min} = c_{cr}$	$s_{cr} = s_{min II} = s_{min \perp}$	$\max T_{inst}$
		[mm]		[Nm]
<b>M8</b>	80	120	240	2
<b>M10</b>	90	135	270	
<b>M12</b>	100	150	300	
<b>M16</b>	100	150	300	

**Table C9: Displacement**

$h_{ef}$	<b>N</b>	$\delta_{N0}$	$\delta_{N=}$	<b>V</b>	$\delta_{V0}$	$\delta_{V=}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \cdot \gamma_M}$	0,23	0,47	$\frac{V_{Rk}}{1,4 \cdot \gamma_M}$	1,23	1,84
90		0,58	1,17		0,87	1,31
100		0,10	0,21		1,29	1,94

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Autoclaved Aerated Concrete – AAC4  
Brick description  
Installation parameters, Displacement

**Annex C 7**

**Brick type: Autoclaved Aerated Concrete AAC4**

**Table C10: Characteristic values of resistance under tension and shear loads**

Anchor size	Effective anchorage depth	Characteristic resistance				
		Use category				
		d/d		w/d w/w		d/d w/d w/w
		40°C / 24°C	80°C / 50°C	40°C / 24°C	80°C / 50°C	For all temperature range
$h_{ef}$	$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,b}^{2)}$	
[mm]	[kN]					
Compressive strength $f_b \geq 4 \text{ N/mm}^2$						
M8	80	0,9	0,9	0,9	0,9	1,5
M10	90	2,5	2,0	1,5	1,5	2,0
M12	100	2,5	2,0	2,0	1,5	2,5
M16	100	3,5	3,0	2,0	2,0	3,5

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,p} = N_{Rk,b}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,pb}$  see TR 054  
<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,pb}$  and  $V_{Rk,c}$  see TR 054


Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Autoclaved Aerated Concrete – AAC4  
 Characteristic values of resistance under tension and shear load

**Annex C 8**

**Brick type: Autoclaved Aerated Concrete AAC6**

**Table C11: Description**

Brick type	Autoclaved Aerated Concrete AAC6	
Bulk density [kg/dm³]	0,60	
Compressive strength [N/mm²]	6	
Code	EN 771-4	
Producer (country code)	e.g. Porit (DE)	
Brick dimensions [mm]	499 x 240 x 249	
Drilling method	Rotary drilling	

**Table C12: Installation parameter (Edge and spacing distances)**

Anchor size	Effective anchorage depth	Edge distance	Spacing	Maximum installation torque
	$h_{ef}$	$c_{min} = c_{gr}$	$s_{gr} = s_{min \parallel} = s_{min \perp}$	max $T_{inst}$
		[mm]		[Nm]
<b>M8</b>	80	120	240	2
<b>M10</b>	90	135	270	
<b>M12</b>	100	150	300	
<b>M16</b>	100	150	300	

**Table C13: Displacement**

$h_{ef}$	<b>N</b>	$\delta_{N0}$	$\delta_{N=}$	<b>V</b>	$\delta_{V0}$	$\delta_{V=}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \cdot \gamma_M}$	0,54	1,09	$\frac{V_{Rk}}{1,4 \cdot \gamma_M}$	0,32	0,48
90		0,85	1,69		1,49	2,23
100		0,10	0,19		1,87	2,50

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Autoclaved Aerated Concrete – AAC6  
Brick description  
Installation parameters, Displacements

**Annex C 9**

**Brick type: Autoclaved Aerated Concrete AAC6**

**Table C14: Characteristic values of resistance under tension and shear loads**

Anchor size	Effective anchorage depth	Characteristic resistance				
		Use category				
		d/d		w/d w/w		d/d w/d w/w
		40°C / 24°C	80°C / 50°C	40°C / 24°C	80°C / 50°C	For all temperature range
		$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,b}^{2)}$
[mm]	[kN]					
Compressive strength $f_b \geq 6 \text{ N/mm}^2$						
M8	80	2,0	2,0	2,0	2,0	5,5
M10	90	3,0	2,5	2,5	2,0	9,0
M12	100	4,5	3,5	3,0	2,5	9,0
M16	100	5,5	4,5	3,5	3,0	11,0

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,p} = N_{Rk,t}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,pb}$  see TR 054

<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,pb}$  and  $V_{Rk,c}$  see TR 054


Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Autoclaved Aerated Concrete – AAC6  
Characteristic values of resistance under tension and shear load

**Annex C 10**

**Brick type: Calcium silicate solid brick KS-NF**

**Table C15: Description**

Brick type	Calcium silicate solid brick KS-NF	
Bulk density [kg/dm³]	2,0	
Compressive strength [N/mm²]	10, 20 or 27	
Code	EN 771-2	
Producer (country code)	e.g. Wemding (DE)	
Brick dimensions [mm]	240 x 115 x 71	
Drilling method	Hammer drilling	

**Table C16: Installation parameter (Edge and spacing distances)**

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing	Maximum installation torque
		$h_{ef}$	$c_{min} = c_{cr}$	$s_{cr} = s_{min II} = s_{min \perp}$	max $T_{inst}$
[mm]					[Nm]
<b>M8</b>	-	80	120	240	10
<b>M10</b>	-	90	135	270	20
<b>M12 / M16</b>	-	100	150	300	
<b>M8</b>	SH 12x80	80	120	240	10
	SH 16x85	85	127	255	
<b>M10</b>	SH 16x85	85	127	255	20
<b>M8 / M10</b>	SH 16x130	130	195	390	
	SH 16x130/330	130	195	390	
<b>M12 / M16</b>	SH 20x85	85	127	255	
	SH 20x130	130	195	390	
	SH 20x200	200	300	600	

**Table C17: Displacement**

$h_{ef}$	<b>N</b>	$\delta_{N0}$	$\delta_{N=}$	<b>V</b>	$\delta_{V0}$	$\delta_{V=}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \cdot \gamma_M}$	0,08	0,16	$\frac{V_{Rk}}{1,4 \cdot \gamma_M}$	3,07	4,81
85		0,26	0,52		1,46	2,19
90		0,09	0,18		1,50	2,25
100		0,10	0,20		1,03	1,53
130 ; 200		0,22	0,44		1,16	1,74

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Calcium solid brick KS-NF  
Brick description  
Installation parameters, Displacements

**Annex C 11**

**Brick type: Calcium silicate solid brick KS-NF**

**Table C18: Characteristic values of resistance under tension and shear loads**

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
			$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,b}^{2)}$
		$h_{ef}$	[kN]		
		[mm]			
<b>Compressive strength <math>f_b \geq 10 \text{ N/mm}^2</math></b>					
<b>M8</b>	-	80	3,0	2,0	3,0
<b>M10</b>	-	90	3,0	2,0	3,0
<b>M12</b>	-	100	4,0	2,5	3,5
<b>M16</b>	-	100	3,0	2,0	3,5
<b>M8</b>	SH 12x80	80	2,5	2,0	2,5
	SH 16x85	85	2,5	2,0	3,0
	SH16x130 / SH16x130/330	130	4,0	2,5	4,0
<b>M10</b>	SH 16x85	85	2,5	2,0	3,0
	SH16x130/330	130	4,5	3,0	4,0
<b>M12 / M16</b>	SH 20x85	85	2,5	2,0	3,0
	SH 20x130 / SH 20x200	130 / 200	4,5	2,5	4,0
<b>Compressive strength <math>f_b \geq 20 \text{ N/mm}^2</math></b>					
<b>M8</b>	-	80	4,5	3,0	4,5
<b>M10</b>	-	90	4,5	3,0	4,5
<b>M12</b>	-	100	5,5	3,5	5,0
<b>M16</b>	-	100	4,5	3,0	5,0
<b>M8</b>	SH 12x80	80	4,0	2,5	4,0
	SH 16x85	85	4,0	2,5	4,5
	SH16x130 / SH16x130/330	130	6,0	3,5	5,5
<b>M10</b>	SH 16x85	85	4,0	2,5	4,5
	SH 16x130/330	130	6,0	4,0	5,5
<b>M12 / M16</b>	SH 20x85	85	4,0	2,5	5,0
	SH 20x130 / SH 20x200	130 / 200	6,0	4,0	5,5
<b>Compressive strength <math>f_b \geq 27 \text{ N/mm}^2</math></b>					
<b>M8</b>	-	80	5,5	3,5	5,0
<b>M10</b>	-	90	5,5	3,5	5,5
<b>M12</b>	-	100	6,5	4,5	6,0
<b>M16</b>	-	100	5,5	3,5	6,0
<b>M8</b>	SH 12x80	80	4,5	3,0	4,5
	SH 16x85	85	4,5	3,0	5,5
	SH16x130 / SH16x130/330	130	6,5	4,5	6,5
<b>M10</b>	SH 16x85	85	4,5	3,0	5,5
	SH 16x130/330	130	6,5	4,5	6,5
<b>M12 / M16</b>	SH 20x85	85	4,5	3,0	5,5
	SH 20x130 / SH 20x200	130 / 200	6,5	4,5	6,5

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,p} = N_{Rk,c}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,p}$  see TR 054

<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,p}$  and  $V_{Rk,c}$  see TR 054

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry


Performance Calcium solid brick KS-NF  
Characteristic values of resistance under tension and shear load

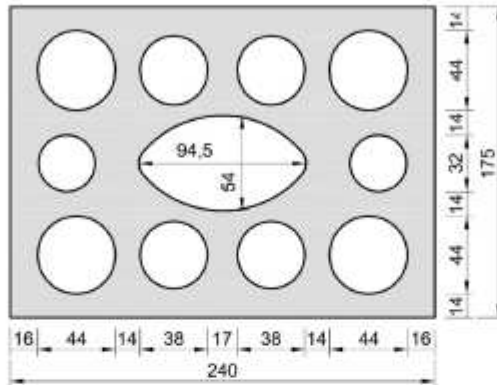
**Annex C 12**



**Brick type: Calcium silicate hollow brick KS L-3DF**

**Table C19: Description**

Brick type	Calcium silicate hollow brick KS L-3DF	
Bulk density [kg/dm³]	1,4	
Compressive strength [N/mm²]	8, 12 or 14	
Code	EN 771-2	
Producer (country code)	e.g. Wemding (DE)	
Brick dimensions [mm]	240 x 175 x 113	
Drilling method	Rotary drilling	



**Table C20: Installation parameter (Edge and spacing distances)**

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
				$S_{cr} = S_{min \parallel}$	$S_{min \perp}$	
		$h_{ef}$	$C_{min} = C_{cr}$	[mm]		$max T_{inst}$
						[Nm]
<b>M8</b>	SH 12x80	80	100	240	113	8
<b>M8 / M10</b>	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
<b>M12 / M16</b>	SH 20x85	85	120	240	113	8
	SH 20x130	130				
	SH 20x200	200				

**Table C21: Displacement**

$h_{ef}$	<b>N</b>	$\delta_{N0}$	$\delta_{N_{10}}$	<b>V</b>	$\delta_{V0}$	$\delta_{V_{10}}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{10}}{1,4 \cdot \gamma_{M1}}$	0,36	0,73	$\frac{V_{10}}{1,4 \cdot \gamma_{M1}}$	0,82	1,23
85		1,62	3,24		1,83	2,75
130 ; 200		1,70	3,40		1,98	2,98

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Calcium hollow brick KS L-3DF  
Brick description  
Installation parameters, Displacements

**Annex C 13**

**Brick type: Calcium silicate hollow brick KS L-3DF**

**Table C22: Characteristic values of resistance under tension and shear loads**

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
			$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,b}^{2)}$
		$h_{ef}$			
		[mm]		[kN]	
<b>Compressive strength <math>f_b \geq 8 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	1,5	0,9	2,0
	SH 16x85	85	1,5	0,9	2,5
	SH 16x130	130	2,5	1,5	3,0
	SH 16x130/330	130	2,5	1,5	3,0
<b>M10</b>	SH 16x85	85	1,5	0,9	2,5
	SH 16x130	130	2,5	1,5	3,0
	SH 16x130/330	130	2,5	1,5	3,0
<b>M12</b>	SH 20x85	85	1,5	0,9	3,0
	SH 20x130 / SH 20x200	130 / 200	2,5	1,5	3,0
<b>M16</b>	SH 20x85	85	1,5	0,9	3,0
	SH 20x130 / SH 20x200	130 / 200	2,5	1,5	4,0
<b>Compressive strength <math>f_b \geq 12 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	2,0	1,2	2,5
	SH 16x85	85	2,0	1,2	3,5
	SH 16x130	130	3,5	2,0	4,5
	SH 16x130/330	130	3,5	2,0	4,5
<b>M10</b>	SH 16x85	85	2,0	1,2	3,5
	SH 16x130	130	3,5	2,0	4,5
	SH 16x130/330	130	3,5	2,0	4,5
<b>M12</b>	SH 20x85	85	2,0	1,2	3,5
	SH 20x130 / SH 20x200	130 / 200	3,5	2,0	4,5
<b>M16</b>	SH 20x85	85	2,0	1,2	3,5
	SH 20x130 / SH 20x200	130 / 200	3,5	2,0	5,0
<b>Compressive strength <math>f_b \geq 14 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	2,5	1,5	3,0
	SH 16x85	85	2,5	1,5	4,0
	SH 16x130	130	4,0	3,0	5,0
	SH 16x130/330	130	4,0	3,0	5,0
<b>M10</b>	SH 16x85	85	2,5	1,5	4,0
	SH 16x130	130	4,0	3,0	5,0
	SH 16x130/330	130	4,0	3,0	5,0
<b>M12</b>	SH 20x85	85	2,5	1,5	4,5
	SH 20x130 / SH 20x200	130 / 200	4,0	3,0	5,0
<b>M16</b>	SH 20x85	85	2,5	1,5	4,5
	SH 20x130 / SH 20x200	130 / 200	4,0	3,0	6,0

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,d} = N_{Rk,s}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,d}$  see TR 054

<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,d}$  and  $V_{Rk,c}$  see TR 054


Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

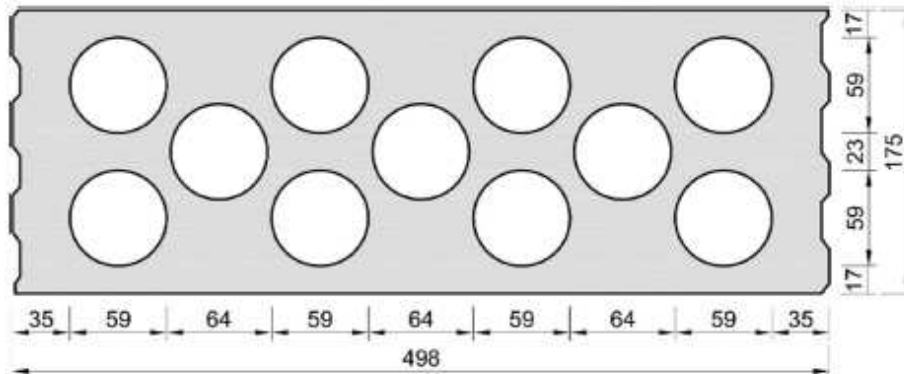
Performance Calcium hollow brick KS L-3DF  
Characteristic values of resistance under tension and shear load

**Annex C 14**

**Brick type: Calcium silicate hollow brick KS L-12DF**

**Table C23: Description**

Brick type	Calcium silicate hollow brick KS L-12DF	
Bulk density [kg/dm <sup>3</sup> ]	1,40	
Compressive strength [N/mm <sup>2</sup> ]	10, 12 or 16	
Code	EN 771-2	
Producer (country code)	e.g. Wemding (DE)	
Brick dimensions [mm]	498 x 175 x 238	
Drilling method	Rotary drilling	



**Table C24: Installation parameter (Edge and spacing distances)**

Anchor size	Sleeve	Embedment depth $h_{ef}$	Edge distance $c_{min} = c_{or}$	Spacing		Maximum installation torque $\max T_{inst}$ [Nm]
				$s_{or} = s_{min \parallel}$	$s_{min \perp}$	
<b>M8</b>	SH 12x80	80	100	498	238	2
<b>M8 / M10</b>	SH 16x85	85				
	SH 16x130 SH 16x130/330	130				4
<b>M12 / M16</b>	SH 20x85	85	120	498	238	4
	SH 20x130	130				

**Table C25: Displacement**

$h_{ef}$ [mm]	<b>N</b> [kN]	$\delta_{N0}$ [mm]	$\delta_{N=}$ [mm]	<b>V</b> [kN]	$\delta_{V0}$ [mm]	$\delta_{V=}$ [mm]
80	$N_{ult}$ $1,4 \cdot \gamma_{M}$	0,21	0,42	$V_{ult}$ $1,4 \cdot \gamma_{M}$	1,77	2,66
85		0,13	0,26		3,89	5,83
130		0,22	0,44		4,35	6,52

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Calcium hollow brick KS L-12DF  
Brick description  
Installation parameters, Displacement

**Annex C 15**

**Brick type: Calcium silicate hollow brick KS L-12DF**

**Table C26: Characteristic values of resistance under tension and shear loads**

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
			$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,d}^{2)}$
[mm]	[kN]				
<b>Compressive strength <math>f_b \geq 10 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	0,4	0,3	3,0
	SH 16x85	85	1,2	0,9	6,0
	SH 16x130	130	3,5	2,5	7,0
	SH 16x130/330	130	3,5	2,5	7,0
<b>M10</b>	SH 16x85	85	1,2	0,9	6,0
	SH 16x130	130	3,5	2,5	7,0
	SH 16x130/330	130	3,5	2,5	7,0
<b>M12 / M16</b>	SH 20x85	85	1,2	0,9	6,0
	SH 20x130 / SH 20x200	130 / 200	3,5	2,5	7,0
<b>Compressive strength <math>f_b \geq 12 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	0,4	0,3	3,5
	SH 16x85	85	1,5	0,9	7,0
	SH 16x130	130	4,5	3,0	8,0
	SH 16x130/330	130	4,5	3,0	8,0
<b>M10</b>	SH 16x85	85	1,5	0,9	7,0
	SH 16x130	130	4,5	3,0	8,0
	SH 16x130/330	130	4,5	3,0	8,0
<b>M12 / M16</b>	SH 20x85	85	1,5	0,9	7,0
	SH 20x130 / SH 20x200	130 / 200	4,5	3,0	8,0
<b>Compressive strength <math>f_b \geq 16 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	0,5	0,4	4,0
	SH 16x85	85	2,0	1,2	9,0
	SH 16x130	130	5,5	3,5	10,0
	SH 16x130/330	130	5,5	3,5	10,0
<b>M10</b>	SH 16x85	85	2,0	1,2	9,0
	SH 16x130	130	5,5	3,5	10,0
	SH 16x130/330	130	5,5	3,5	10,0
<b>M12 / M16</b>	SH 20x85	85	2,0	1,2	8,5
	SH 20x130 / SH 20x200	130 / 200	5,5	3,5	10,0

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,p} = N_{Rk,t}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,p,t}$  see TR 054

<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,p,t}$  and  $V_{Rk,s}$  see TR 054

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Calcium hollow brick KS L-12DF  
Characteristic values of resistance under tension and shear load

**Annex C 16**

Brick type: Clay solid brick Mz-DF

Table C27: Description


Brick type	Clay solid brick Mz-DF	
Bulk density [kg/dm³]	1,64	
Compressive strength [N/mm²]	10, 20 or 28	
Code	EN 771-1	
Producer (country code)	e.g. Unipor (DE)	
Brick dimensions [mm]	240 x 115 x 55	
Drilling method	Hammer drilling	

Table C28: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing	Maximum installation torque
		$h_{ef}$	$c_{min} = c_{cr}$	$s_{cr} = s_{min   } = s_{min \perp}$	max $T_{inst}$
[mm]					[Nm]
M8	-	80	120	240	6
	SH 12x80	80	120	240	
	SH 16x85	85	127	255	
M10	-	90	135	270	10
M12 / M16	-	100	150	300	
M10	SH 16x85	85	127	255	8
	SH 16x130	130	195	390	
	SH 16x130/330	130	195	390	
M12 / M16	SH 20x85	85	127	255	
	SH 20x130	130	195	390	
	SH 20x200	200	300	600	

Table C29: Displacement

$h_{ef}$	N	$\delta_{N0}$	$\delta_{N=}$	V	$\delta_{V0}$	$\delta_{V=}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \cdot \gamma_M}$	0,12	0,24	$\frac{V_{Rk}}{1,4 \cdot \gamma_M}$	2,27	3,41
85		0,13	0,26		1,22	1,83
90		0,06	0,13		0,71	1,06
100		0,18	0,35		0,43	0,64
130 ; 200		0,42	0,85		1,22	1,83

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Clay solid brick Mz-DF  
Brick description  
Installation parameters, Displacements

Annex C 17

**Brick type: Clay solid brick Mz-DF**

**Table C30: Characteristic values of resistance under tension and shear loads**

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
			$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,b}^{2)}$
		$h_{ef}$	[kN]		
		[mm]			
<b>Compressive strength <math>f_b \geq 10 \text{ N/mm}^2</math></b>					
M8	-	80	1,5	1,2	3,0
M10	-	90	1,5	1,2	3,5
M12	-	100	1,5	0,9	5,0
M16	-	100	2,5	1,5	5,0
M8	SH 12x80	80	2,0	1,5	3,0
	SH 16x85	85	2,0	1,5	3,0
	SH 16x130 / SH 16x130/330	130	3,0	2,0	3,0
M10	SH 16x85	85	2,0	1,5	3,5
	SH 16x130 / SH 16x130/330	130	3,0	2,0	3,5
M12 / M16	SH 20x85	85	2,0	1,5	3,5
	SH 20x130 / SH 20x200	130 / 200	3,0	2,0	3,5
<b>Compressive strength <math>f_b \geq 20 \text{ N/mm}^2</math></b>					
M8	-	80	2,5	1,5	4,5
M10	-	90	2,5	1,5	5,5
M12	-	100	2,0	1,5	7,5
M16	-	100	3,5	2,5	7,5
M8	SH 12x80	80	3,0	2,0	4,0
	SH 16x85	85	3,0	2,0	4,5
	SH 16x130 / SH 16x130/330	130	4,0	2,5	4,5
M10	SH 16x85	85	3,0	2,0	5,0
	SH 16x130 / SH 16x130/330	130	4,5	3,0	5,0
M12 / M16	SH 20x85	85	3,0	2,0	5,0
	SH 20x130 / SH 20x200	130 / 200	4,5	3,0	5,0
<b>Compressive strength <math>f_b \geq 28 \text{ N/mm}^2</math></b>					
M8	-	80	3,0	2,0	5,5
M10	-	90	3,0	2,0	6,5
M12	-	100	2,5	1,5	9,0
M16	-	100	4,5	3,0	9,0
M8	SH 12x80	80	3,5	2,5	5,0
	SH 16x85	85	3,5	2,5	5,0
	SH 16x130 / SH 16x130/330	130	5,0	3,5	5,0
M10	SH 16x85	85	3,5	2,5	6,0
	SH 16x130 / SH 16x130/330	130	5,0	3,5	6,0
M12 / M16	SH 20x85	85	3,5	2,5	6,0
	SH 20x130 / SH 20x200	130 / 200	5,0	3,5	6,0

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,p} = N_{Rk,s}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,pb}$  see TR 054

<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,pb}$  and  $V_{Rk,s}$  see TR 054

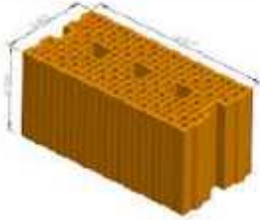
Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

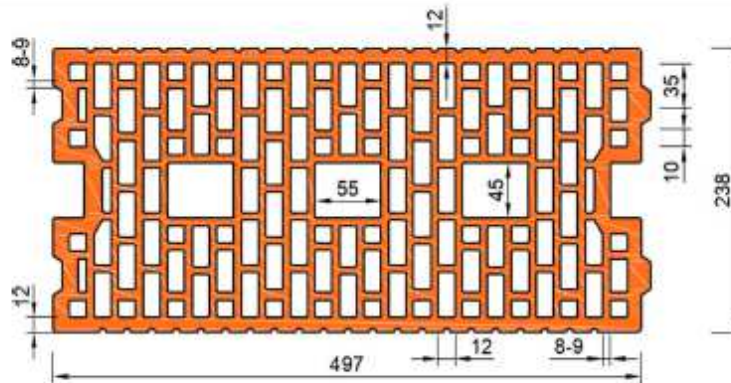
Performance Clay solid brick Mz-DF  
Characteristic values of resistance under tension and shear load

**Annex C 18**

**Brick type: Clay hollow brick HLz-16DF**

**Table C31: Description**

Brick type	Clay hollow brick HLz-16DF	
Bulk density [kg/dm <sup>3</sup> ]	0,83	
Compressive strength [N/mm <sup>2</sup> ]	6, 9, 12 or 14	
Code	EN 771-1	
Producer (country code)	e.g. Unipor (DE)	
Brick dimensions [mm]	497 x 238 x 240	
Drilling method	Rotary drilling	



**Table C32: Installation parameter (Edge and spacing distances)**

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
				$S_{cr} = S_{min \parallel}$	$S_{min \perp}$	
		$h_{ef}$	$c_{min} = c_{or}$	[mm]		$max T_{inst}$
						[Nm]
<b>M8</b>	SH 12x80	80	100	497	238	6
<b>M8 / M10</b>	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
<b>M12 / M16</b>	SH 20x85	85	120	497	238	6
	SH 20x130	130				
	SH 20x200	200				

**Table C33: Displacement**

$h_{ef}$	<b>N</b>	$\delta_{N0}$	$\delta_{N=}$	<b>V</b>	$\delta_{V0}$	$\delta_{V=}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$N_{ult}$	0,27	0,55	$V_{ult}$	1,02	1,53
85		0,55	1,10		2,14	3,22
130 ; 200		$1,4 \cdot \gamma_{NV}$	0,19		0,38	$1,4 \cdot \gamma_{NV}$

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Clay hollow brick HLz-16DF  
Brick description  
Installation parameters, Displacements

**Annex C 19**

Brick type: Clay hollow brick HLz-16DF

Table C34: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category		
			d/d	w/d	w/w
			40°C / 24°C	80°C / 50°C	For all temperature range
		$h_{ef}$	$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,b}^{2)}$
		[mm]	[kN]		
<b>Compressive strength <math>f_b \geq 6 \text{ N/mm}^2</math></b>					
M8	SH 12x80	80	1,2	0,75	2,5
	SH 16x85	85	1,5	1,2	4,0
	SH 16x130	130	2,5	1,5	4,0
	SH 16x130/330	130	2,5	1,5	4,0
M10	SH 16x85	85	1,5	1,2	4,0
	SH 16x130	130	2,5	1,5	6,0
	SH 16x130/330	130	2,5	1,5	6,0
M12 / M16	SH 20x85	85	2,0	1,5	4,0
	SH 20x130 / SH 20x200	130/ 200	2,5	1,5	6,0
<b>Compressive strength <math>f_b \geq 9 \text{ N/mm}^2</math></b>					
M8	SH 12x80	80	1,2	0,9	3,0
	SH 16x85	85	2,0	1,5	4,5
	SH 16x130	130	3,0	2,0	5,0
	SH 16x130/330	130	3,0	2,0	5,0
M10	SH 16x85	85	2,0	1,5	5,0
	SH 16x130	130	3,0	2,0	7,0
	SH 16x130/330	130	3,0	2,0	7,0
M12 / M16	SH 20x85	85	2,5	2,0	5,0
	SH 20x130 / SH 20x200	130/ 200	3,0	2,0	7,0
<b>Compressive strength <math>f_b \geq 12 \text{ N/mm}^2</math></b>					
M8	SH 12x80	80	1,5	1,2	3,5
	SH 16x85	85	2,5	1,5	5,5
	SH 16x130	130	3,5	2,5	6,0
	SH 16x130/330	130	3,5	2,5	6,0
M10	SH 16x85	85	2,5	1,5	6,0
	SH 16x130	130	3,5	2,5	8,0
	SH 16x130/330	130	3,5	2,5	8,0
M12 / M16	SH 20x85	85	3,5	2,0	6,0
	SH 20x130 / SH 20x200	130/ 200	3,5	2,5	8,0
<b>Compressive strength <math>f_b \geq 14 \text{ N/mm}^2</math></b>					
M8	SH 12x80	80	1,5	1,2	4,0
	SH 16x85	85	2,5	2,0	6,0
	SH 16x130	130	3,5	2,5	6,5
	SH 16x130/330	130	3,5	2,5	6,5
M10	SH 16x85	85	2,5	2,0	6,0
	SH 16x130	130	3,5	2,5	9,0
	SH 16x130/330	130	3,5	2,5	9,0
M12 / M16	SH 20x85	85	3,5	2,0	6,0
	SH 20x130 / SH 20x200	130/ 200	3,5	2,5	9,0

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,d} = N_{Rk,t}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,tb}$  see TR 054

<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,tb}$  and  $V_{Rk,c}$  see TR 054

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry


Performance Clay hollow brick HLz-16DF  
Characteristic values of resistance under tension and shear load

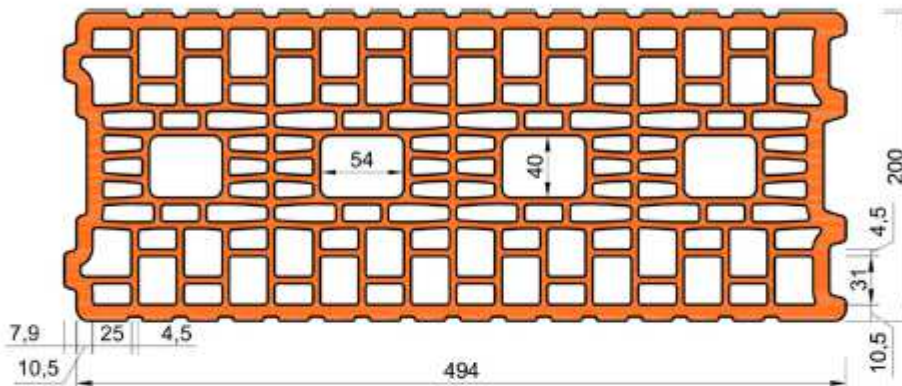
Annex C 20



**Brick type: Clay hollow brick Porotherm Homebric**

**Table C35: Description**

Brick type	Clay hollow brick Porotherm Homebric	
Bulk density [kg/dm³]	0,68	
Compressive strength [N/mm²]	6, 8 or 10	
Code	EN 771-1	
Producer (country code)	e.g. Wienerberger (FR)	
Brick dimensions [mm]	500 x 200 x 299	
Drilling method	Rotary drilling	



**Table C36: Installation parameter (Edge and spacing distances)**

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
				$C_{min} = C_{cr}$	$S_{cr} = S_{min \parallel}$	
		$h_{ef}$		[mm]		[Nm]
<b>M8</b>	SH 12x80	80	100	500	299	2
<b>M8 / M10</b>	SH 16x85	85				6
	SH 16x130	130				
<b>M12 / M16</b>	SH 16x130/330	130	120	500	299	6
	SH 20x85	85				
	SH 20x130	130				

**Table C37: Displacement**

$h_{ef}$	<b>N</b>	$\delta_{N0}$	$\delta_{N\infty}$	<b>V</b>	$\delta_{V0}$	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \cdot \gamma_M}$	0,65	1,29	$\frac{V_{Rk}}{1,4 \cdot \gamma_M}$	1,26	1,89
85		0,52	1,04		1,89	2,84
130		0,45	0,90		1,48	2,23

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Clay hollow brick Porotherm Homebric  
Brick description  
Installation parameters, Displacements

**Annex C 21**

Brick type: Clay hollow brick Porotherm Homebric

Table C38: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
			$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,d}^{2)}$
[mm]		[kN]			
<b>Compressive strength <math>f_b \geq 6 \text{ N/mm}^2</math></b>					
M8	SH 12x80	80	0,9	0,75	2,0
	SH 16x85	85	1,2	0,75	2,0
	SH 16x130	130	1,5	0,9	2,5
	SH 16x130/330	130	1,5	0,9	2,5
M10	SH 16x85	85	1,2	0,75	2,0
	SH 16x130	130	1,5	0,9	2,5
	SH 16x130/330	130	1,5	0,9	2,5
M12	SH 20x85	85	1,2	0,75	3,0
	SH 20x130	130	1,5	0,9	3,0
M16	SH 20x85	85	1,2	0,75	3,0
	SH 20x130	130	1,5	0,9	3,0
<b>Compressive strength <math>f_b \geq 8 \text{ N/mm}^2</math></b>					
M8	SH 12x80	80	1,2	0,9	2,5
	SH 16x85	85	1,2	0,9	2,5
	SH 16x130	130	1,5	1,2	3,0
	SH 16x130/330	130	1,5	1,2	3,0
M10	SH 16x85	85	1,2	0,9	2,5
	SH 16x130	130	1,5	1,2	3,0
	SH 16x130/330	130	1,5	1,2	3,0
M12	SH 20x85	85	1,2	0,9	3,5
	SH 20x130	130	1,5	1,2	3,5
M16	SH 20x85	85	1,2	0,9	3,5
	SH 20x130	130	1,5	1,2	3,5
<b>Compressive strength <math>f_b \geq 10 \text{ N/mm}^2</math></b>					
M8	SH 12x80	80	1,2	0,9	3,0
	SH 16x85	85	1,5	0,9	3,0
	SH 16x130	130	2,0	1,2	3,5
	SH 16x130/330	130	2,0	1,2	3,5
M10	SH 16x85	85	1,5	0,9	3,0
	SH 16x130	130	2,0	1,2	3,5
	SH 16x130/330	130	2,0	1,2	3,5
M12	SH 20x85	85	1,5	0,9	4,0
	SH 20x130	130	2,0	1,2	4,0
M16	SH 20x85	85	1,5	0,9	4,0
	SH 20x130	130	2,0	1,2	4,0

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,p} = N_{Rk,s}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,p}$  see TR 054

<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,p}$  and  $V_{Rk,c}$  see TR 054


Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

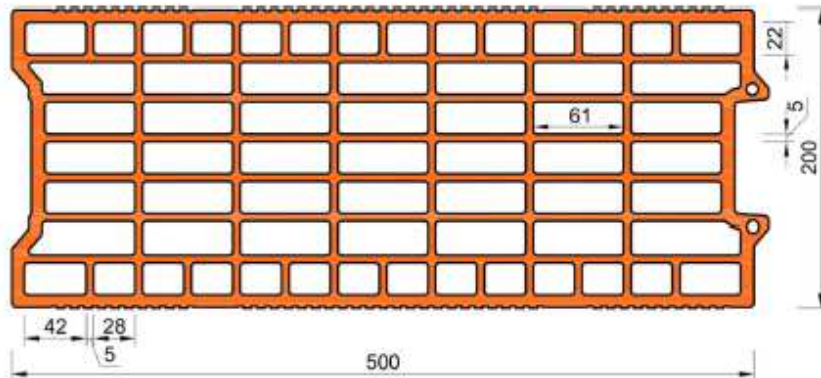
Performance Clay hollow brick Porotherm Homebric  
Characteristic values of resistance under tension and shear load

**Annex C 22**

**Brick type: Clay hollow brick BGV Thermo**

**Table C39: Description**

Brick type	Clay hollow brick BGV Thermo	
Bulk density [kg/dm³]	0,62	
Compressive strength [N/mm²]	4, 6 or 10	
Code	EN 771-1	
Producer (country code)	e.g. Leroux (FR)	
Brick dimensions [mm]	500 x 200 x 314	
Drilling method	Rotary drilling	



**Table C40: Installation parameter (Edge and spacing distances)**

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
				$C_{min} = C_{cr}$	$S_{cr} = S_{min \parallel}$ $S_{min \perp}$	
		$h_{ef}$		[mm]		$\max T_{inst}$ [Nm]
<b>M8</b>	SH 12x80	80	100	500	314	2
<b>M8 / M10</b>	SH 16x85	85				4
	SH 16x130	130				
	SH 16x130/330	130				
<b>M12 / M16</b>	SH 20x85	85	120	500	314	4
	SH 20x130	130				

**Table C41: Displacement**

$h_{ef}$ [mm]	<b>N</b> [kN]	$\delta_{N0}$ [mm]	$\delta_{N=}$ [mm]	<b>V</b> [kN]	$\delta_{V0}$ [mm]	$\delta_{V=}$ [mm]
80	$\frac{N_{th}}{1,4 \cdot \gamma_M}$	0,27	0,54	$\frac{V_{th}}{1,4 \cdot \gamma_M}$	1,21	1,81
85		0,39	0,77		2,00	3,01
130		0,16	0,32		1,60	2,39

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Clay hollow brick BGV Thermo  
Brick description  
Installation parameters, Displacements

**Annex C 23**

**Brick type: Clay hollow brick BGV Thermo**

**Table C42: Characteristic values of resistance under tension and shear loads**

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
			$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,d}^{2)}$
	$h_{ef}$ [mm]	[kN]			
<b>Compressive strength <math>f_b \geq 4 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	0,5	0,4	2,0
	SH 16x85	85	0,75	0,5	2,0
	SH 16x130	130	0,9	0,75	2,5
	SH 16x130/330	130	0,9	0,75	2,5
<b>M10</b>	SH 16x85	85	0,75	0,5	2,0
	SH 16x130	130	1,2	0,75	2,5
	SH 16x130/330	130	1,2	0,75	2,5
<b>M12</b>	SH 20x85	85	0,75	0,5	2,0
	SH 20x130	130	1,2	0,75	2,5
<b>M16</b>	SH 20x85	85	0,9	0,6	2,0
	SH 20x130	130	1,2	0,75	2,5
<b>Compressive strength <math>f_b \geq 6 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	0,6	0,5	2,0
	SH 16x85	85	0,9	0,6	2,5
	SH 16x130	130	1,2	0,9	3,0
	SH 16x130/330	130	1,2	0,9	3,0
<b>M10</b>	SH 16x85	85	0,9	0,6	2,5
	SH 16x130	130	1,5	0,9	3,0
	SH 16x130/330	130	1,5	0,9	3,0
<b>M12</b>	SH 20x85	85	0,9	0,6	3,0
	SH 20x130	130	1,5	0,9	3,0
<b>M16</b>	SH 20x85	85	1,2	0,75	3,0
	SH 20x130	130	1,5	0,9	3,0
<b>Compressive strength <math>f_b \geq 10 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	0,9	0,6	3,0
	SH 16x85	85	1,2	0,9	3,5
	SH 16x130	130	1,5	1,2	4,0
	SH 16x130/330	130	1,5	1,2	4,0
<b>M10</b>	SH 16x85	85	1,2	0,9	3,5
	SH 16x130	130	1,5	1,2	4,0
	SH 16x130/330	130	1,5	1,2	4,0
<b>M12</b>	SH 20x85	85	1,2	0,75	3,5
	SH 20x130	130	1,5	1,2	4,0
<b>M16</b>	SH 20x85	85	1,5	0,9	3,5
	SH 20x130	130	1,5	1,2	4,0

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,p} = N_{Rk,s}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,p}$  see TR 054

<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,p}$  and  $V_{Rk,s}$  see TR 054


Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

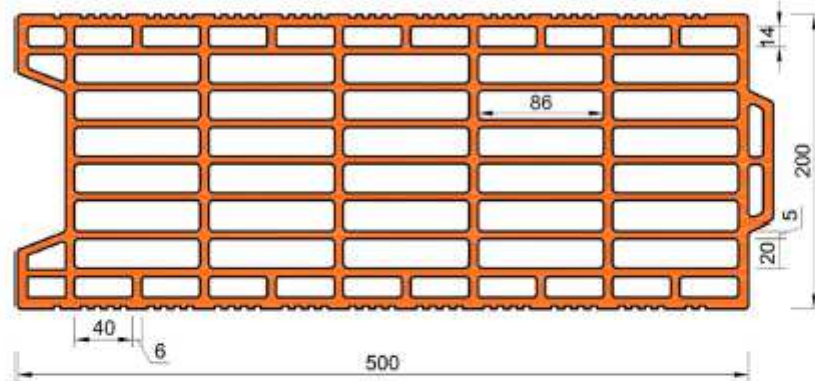
Performance Clay hollow brick BGV Thermo  
Characteristic values of resistance under tension and shear load

**Annex C 24**

**Brick type: Clay hollow brick Calibric Th**

**Table C43: Description**

Brick type	Clay hollow brick Calibric Th	
Bulk density [kg/dm³]	0,62	
Compressive strength [N/mm²]	6, 9 or 12	
Code	EN 771-1	
Producer (country code)	e.g. Terreal (FR)	
Brick dimensions [mm]	500 x 200 x 314	
Drilling method	Rotary drilling	



**Table C44: Installation parameter (Edge and spacing distances)**

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		$h_{ef}$	$C_{min} = C_{cr}$	$s_{cr} = s_{min \parallel}$	$s_{min \perp}$	$\max T_{inst}$
				[mm]		[Nm]
<b>M8</b>	SH 12x80	80	100	500	314	2
<b>M8 / M10</b>	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
<b>M12 / M16</b>	SH 20x85	85	120	500	314	2
	SH 20x130	130				

**Table C45: Displacement**

$h_{ef}$	<b>N</b>	$\delta_{N0}$	$\delta_{N=}$	<b>V</b>	$\delta_{V0}$	$\delta_{V=}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \cdot \gamma_M}$	0,48	0,96	$\frac{V_{Rk}}{1,4 \cdot \gamma_M}$	1,18	1,78
85		0,49	0,98		2,20	3,30
130		0,37	0,74		2,31	3,46

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Clay hollow brick Calibric Th  
Brick description  
Installation parameters, Displacements

**Annex C 25**

**Brick type: Clay hollow brick Calibric Th**

**Table C46: Characteristic values of resistance under tension and shear loads**

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
			$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,b}^{2)}$
$h_{ef}$ [mm]	[kN]				
<b>Compressive strength <math>f_b \geq 6 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	0,75	0,5	2,5
	SH 16x85	85	0,75	0,5	3,5
	SH 16x130	130	0,9	0,6	3,5
	SH 16x130/330	130	0,9	0,6	3,5
<b>M10</b>	SH 16x85	85	0,75	0,5	3,5
	SH 16x130	130	0,9	0,6	3,5
	SH 16x130/330	130	0,9	0,6	3,5
<b>M12</b>	SH 20x85	85	0,75	0,5	6,0
	SH 20x130	130	0,9	0,6	6,0
<b>M16</b>	SH 20x85	85	1,2	0,75	6,0
	SH 20x130	130	1,2	0,75	6,0
<b>Compressive strength <math>f_b \geq 9 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	0,9	0,6	3,5
	SH 16x85	85	0,9	0,6	4,5
	SH 16x130	130	1,2	0,75	4,5
	SH 16x130/330	130	1,2	0,75	4,5
<b>M10</b>	SH 16x85	85	0,9	0,6	4,5
	SH 16x130	130	1,2	0,9	4,5
	SH 16x130/330	130	1,2	0,9	4,5
<b>M12</b>	SH 20x85	85	0,9	0,6	7,5
	SH 20x130	130	1,2	0,9	7,5
<b>M16</b>	SH 20x85	85	1,5	0,9	7,5
	SH 20x130	130	1,5	0,9	7,5
<b>Compressive strength <math>f_b \geq 12 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	0,9	0,75	4,0
	SH 16x85	85	0,9	0,75	5,5
	SH 16x130	130	1,2	0,9	5,5
	SH 16x130/330	130	1,2	0,9	5,5
<b>M10</b>	SH 16x85	85	0,9	0,75	5,5
	SH 16x130	130	1,5	0,9	5,5
	SH 16x130/330	130	1,5	0,9	5,5
<b>M12</b>	SH 20x85	85	0,9	0,75	8,5
	SH 20x130	130	1,5	0,9	8,5
<b>M16</b>	SH 20x85	85	1,5	1,2	8,5
	SH 20x130	130	1,5	1,2	8,5

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,p} = N_{Rk,s}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,p}$  see TR 054

<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,p}$  and  $V_{Rk,s}$  see TR 054

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

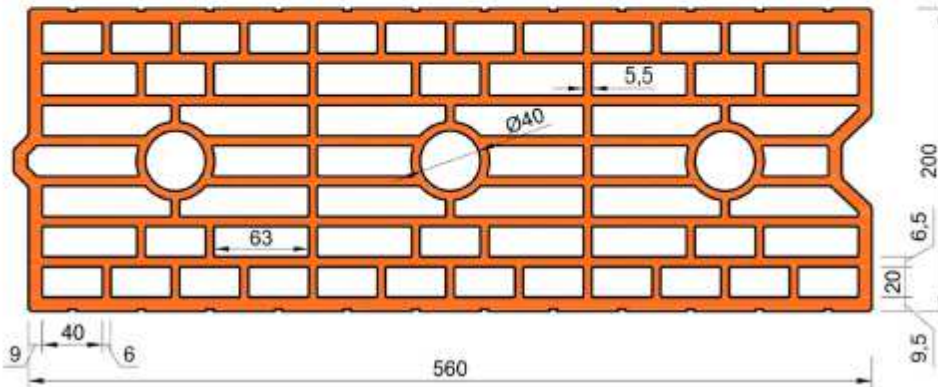
Performance Clay hollow brick Calibric Th  
Characteristic values of resistance under tension and shear load

**Annex C 26**

**Brick type: Clay hollow brick Urbanbric**

**Table C47: Description**

Brick type	Clay hollow brick Urbanbric	
Bulk density [kg/dm³]	0,74	
Compressive strength [N/mm²]	6 or 9	
Code	EN 771-1	
Producer (country code)	e.g. Imerys (FR)	
Brick dimensions [mm]	560 x 200 x 274	
Drilling method	Rotary drilling	



**Table C48: Installation parameter (Edge and spacing distances)**

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
				$C_{min} = C_{cr}$	$S_{cr} = S_{min \parallel}$ $S_{min \perp}$	
				[mm]		max $T_{inst}$ [Nm]
M8	SH 12x80	80	100	560	274	2
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120	560	274	2
	SH 20x130	130				

**Table C49: Displacement**

$h_{ef}$ [mm]	<b>N</b> [kN]	$\delta_{N0}$ [mm]	$\delta_{N\infty}$ [mm]	<b>V</b> [kN]	$\delta_{V0}$ [mm]	$\delta_{V\infty}$ [mm]
80	$\frac{N_{lit}}{1,4 \cdot \gamma_{lit}}$	0,34	0,67	$\frac{V_{lit}}{1,4 \cdot \gamma_{lit}}$	0,71	1,06
85		0,52	1,04		1,37	2,06
130		0,62	1,24		1,62	2,44

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Clay hollow brick Urbanbric  
Brick description  
Installation parameters, Displacements

**Annex C 27**

Brick type: Clay hollow brick Urbanbric

Table C50: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category		
			d/d	w/d	w/w
			40°C / 24°C	80°C / 50°C	For all temperature range
$h_{ef}$	$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,b}^{2)}$		
[mm]	[kN]				
<b>Compressive strength <math>f_b \geq 6 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	0,9	0,75	3,0
<b>M8 / M10</b>	SH 16x85	85	1,2	0,75	3,5
	SH 16x130	130	1,5	1,2	3,5
	SH 16x130/330	130	1,5	1,2	3,5
<b>M12 / M16</b>	SH 20x85	85	1,2	0,75	4,0
	SH 20x130	130	1,5	1,2	4,0
<b>Compressive strength <math>f_b \geq 9 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	1,2	0,9	3,5
<b>M8 / M10</b>	SH 16x85	85	1,5	0,9	4,0
	SH 16x130	130	2,0	1,5	4,5
	SH 16x130/330	130	2,0	1,5	4,5
<b>M12 / M16</b>	SH 20x85	85	1,5	0,9	5,0
	SH 20x130	130	2,0	1,5	5,0

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,p} = N_{Rk,t}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,pb}$  see TR 054

<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,pb}$  and  $V_{Rk,c}$  see TR 054

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Clay hollow brick Urbanbric  
Characteristic values of resistance under tension and shear load

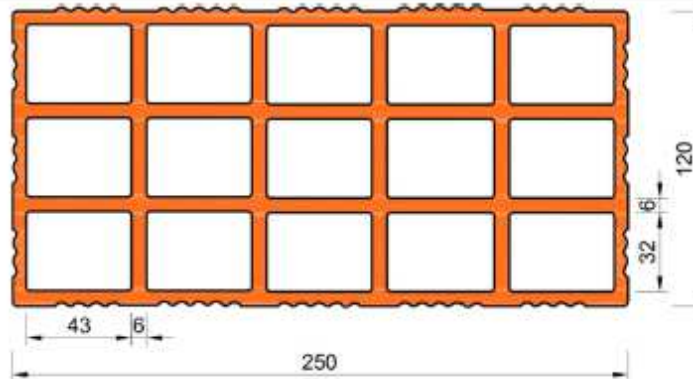
**Annex C 28**



**Brick type: Clay hollow brick Blocchi Leggeri**

**Table C51: Description**

Brick type	Clay hollow brick Blocchi Leggeri	
Bulk density [kg/dm <sup>3</sup> ]	0,55	
Compressive strength [N/mm <sup>2</sup> ]	4, 6 or 8	
Code	EN 771-1	
Producer (country code)	e.g. Wienerberger (IT)	
Brick dimensions [mm]	250 x 120 x 250	
Drilling method	Rotary drilling	



**Table C52: Installation parameter (Edge and spacing distances)**

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		$h_{gr}$	$c_{min} = c_{gr}$	$s_{gr} = s_{min \parallel}$	$s_{min \perp}$	$\max T_{inst}$
				[mm]		[Nm]
<b>M8</b>	SH 12x80	80	100	250	250	4
<b>M8 / M10</b>	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
<b>M12 / M16</b>	SH 20x85	85	120	250	250	4
	SH 20x130	130				
	SH 20x200	200				

**Table C53: Displacement**

$h_{gr}$	<b>N</b>	$\delta_{N0}$	$\delta_{N=}$	<b>V</b>	$\delta_{V0}$	$\delta_{V=}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{III}}$	0,32	0,64	$\frac{V_{III}}$	1,16	1,74
85		0,26	0,53		2,52	3,78
130 ; 200	$1,4 \cdot \gamma_{II}$	0,32	0,64	$1,4 \cdot \gamma_{II}$	2,52	3,78

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Clay hollow brick Blocchi Leggeri  
Brick description  
Installation parameters, Displacements

**Annex C 29**

**Brick type: Clay hollow brick Blocchi Leggeri**

**Table C54: Characteristic values of resistance under tension and shear loads**

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
			$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,d}^{2)}$
her	[mm]		[kN]		
<b>Compressive strength <math>f_b \geq 4 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	0,4	0,3	2,0
<b>M8 / M10</b>	SH 16x85	85	0,4	0,3	2,0
	SH 16x130	130	0,5	0,3	2,0
	SH 16x130/330	130	0,5	0,3	2,0
<b>M12 / M16</b>	SH 20x85	85	0,4	0,3	2,0
	SH 20x130	130	0,5	0,3	2,0
	SH 20x200	200	0,5	0,3	2,0
<b>Compressive strength <math>f_b \geq 6 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	0,5	0,3	2,0
<b>M8 / M10</b>	SH 16x85	85	0,5	0,3	2,0
	SH 16x130	130	0,6	0,4	2,0
	SH 16x130/330	130	0,6	0,4	2,0
	SH 20x85	85	0,5	0,3	2,5
<b>M12 / M16</b>	SH 20x130	130	0,6	0,4	2,5
	SH 20x200	200	0,6	0,4	2,5
	SH 20x200	200	0,6	0,4	2,5
<b>Compressive strength <math>f_b \geq 8 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	0,6	0,4	2,5
<b>M8 / M10</b>	SH 16x85	85	0,6	0,4	2,5
	SH 16x130	130	0,6	0,5	2,5
	SH 16x130/330	130	0,6	0,5	2,5
	SH 20x85	85	0,6	0,4	3,0
<b>M12 / M16</b>	SH 20x130	130	0,6	0,5	3,0
	SH 20x200	200	0,6	0,5	3,0
	SH 20x200	200	0,6	0,5	3,0

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,p} = N_{Rk,t}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,p}$  see TR 054

<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,p}$  and  $V_{Rk,t}$  see TR 054

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

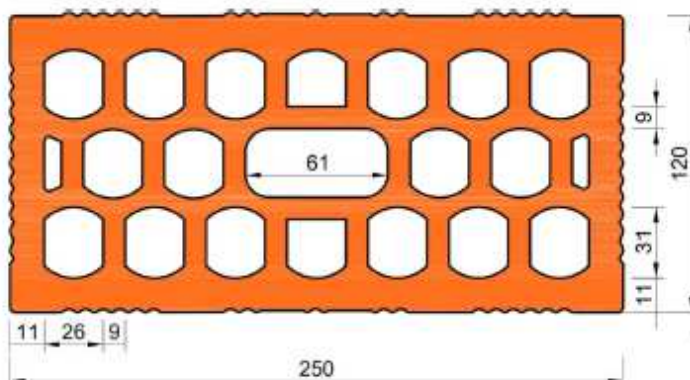
Performance Clay hollow brick Blocchi Leggeri  
Characteristic values of resistance under tension and shear load

**Annex C 30**

## Brick type: Clay hollow brick Doppio Uni

**Table C55: Description**

Brick type	Clay hollow brick Doppio Uni	
Bulk density [kg/dm³]	0,92	
Compressive strength [N/mm²]	10, 16, 20 or 28	
Code	EN 771-1	
Producer (country code)	e.g. Wienerberger (IT)	
Brick dimensions [mm]	250 x 120 x 120	
Drilling method	Rotary drilling	



**Table C56: Installation parameter (Edge and spacing distances)**

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
				$S_{cr} = S_{min \parallel}$	$S_{min \perp}$	
		$h_{ef}$	$C_{min} = C_{cr}$	[mm]		$\max T_{inst}$
						[Nm]
<b>M8</b>	SH 12x80	80	100	250	120	4
<b>M8 / M10</b>	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
<b>M12 / M16</b>	SH 20x85	85	120	250	120	4
	SH 20x130	130				
	SH 20x200	200				

**Table C57: Displacement**

$h_{ef}$	<b>N</b>	$\delta_{N0}$	$\delta_{N_{se}}$	<b>V</b>	$\delta_{V0}$	$\delta_{V_{se}}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$N_{Rk}$	0,54	1,08	$V_{Rk}$	1,63	2,45
85	$1,4 \cdot \gamma_M$	0,17	0,34	$1,4 \cdot \gamma_M$	1,75	2,63
130 ; 200		0,54	1,08		1,75	2,63

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Clay hollow brick Doppio Uni  
Brick description  
Installation parameters, Displacements

**Annex C 31**

Brick type: Clay hollow brick Doppio Uni

Table C58: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
			$N_{Rk}^{1)}$ [mm]	$N_{Rk}^{1)}$ [kN]	$V_{Rk,b}^{2)}$
<b>Compressive strength <math>f_b \geq 10 \text{ N/mm}^2</math></b>					
M8	SH 12x80	80	0,9	0,8	2,0
	SH 16x85	85	0,9	0,8	2,0
M8 / M10	SH 16x130	130	0,9	0,8	2,0
	SH 16x130/330	130	0,9	0,8	2,0
M12 / M16	SH 20x85	85	1,2	0,75	2,0
	SH 20x130	130	1,2	0,75	2,0
	SH 20x200	200	1,2	0,75	2,0
<b>Compressive strength <math>f_b \geq 16 \text{ N/mm}^2</math></b>					
M8	SH 12x80	80	0,9	0,75	2,5
M8 / M10	SH 16x85	85	1,2	0,9	2,5
	SH 16x130	130	1,2	0,9	2,5
	SH 16x130/330	130	1,2	0,9	2,5
M12 / M16	SH 20x85	85	1,5	0,9	2,5
	SH 20x130	130	1,5	0,9	2,5
	SH 20x200	200	1,5	0,9	2,5
<b>Compressive strength <math>f_b \geq 20 \text{ N/mm}^2</math></b>					
M8	SH 12x80	80	1,2	0,75	3,0
M8 / M10	SH 16x85	85	1,2	0,9	3,0
	SH 16x130	130	1,5	0,9	3,0
	SH 16x130/330	130	1,5	0,9	3,0
M12 / M16	SH 20x85	85	1,5	0,9	3,0
	SH 20x130	130	1,5	0,9	3,0
	SH 20x200	200	1,5	0,9	3,0
<b>Compressive strength <math>f_b \geq 28 \text{ N/mm}^2</math></b>					
M8	SH 12x80	80	1,5	0,9	3,5
M8 / M10	SH 16x85	85	1,5	1,2	3,5
	SH 16x130	130	1,5	1,2	3,5
	SH 16x130/330	130	1,5	1,2	3,5
M12 / M16	SH 20x85	85	2,0	1,2	3,5
	SH 20x130	130	2,0	1,2	3,5
	SH 20x200	200	2,0	1,2	3,5

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,p} = N_{Rk,s}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,p}$  see TR 054

<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,p}$  and  $V_{Rk,s}$  see TR 054


Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

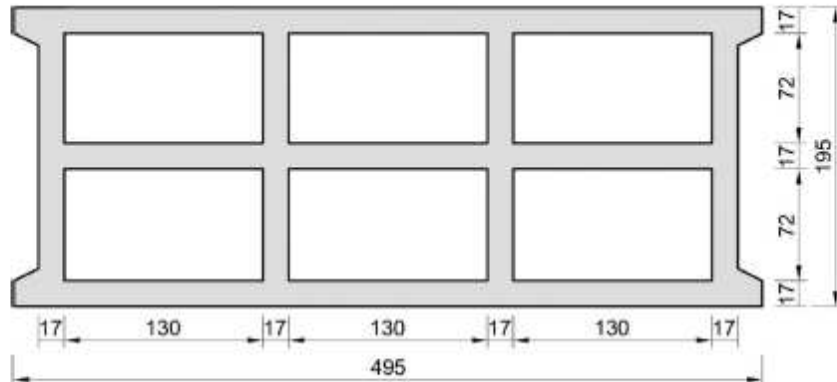
Performance Clay hollow brick Doppio Uni  
Characteristic values of resistance under tension and shear load

**Annex C 32**

**Brick type: Hollow Light weight concrete Bloc creux B40**

**Table C59: Description**

Brick type	Hollow light weight concrete Bloc creux B40	
Bulk density [kg/dm³]	0,8	
Compressive strength [N/mm²]	4	
Code	EN 771-3	
Producer (country code)	e.g. Sepa (FR)	
Brick dimensions [mm]	494 x 200 x 190	
Drilling method	Rotary drilling	



**Table C60: Installation parameter (Edge and spacing distances)**

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
				$s_{cr} = s_{min II}$	$s_{min \perp}$	
	$h_{ef}$	$c_{min} = c_{cr}$	[mm]		$max T_{Inst}$	
					[Nm]	
<b>M8</b>	SH 12x80	80	100	494	190	2
<b>M8 / M10</b>	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
<b>M12 / M16</b>	SH 20x85	85	120	494	190	2
	SH 20x130	130				

**Table C61: Displacement**

$h_{ef}$	<b>N</b>	$\delta_{N0}$	$\delta_{N\infty}$	<b>V</b>	$\delta_{V0}$	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \cdot \gamma_M}$	0,14	0,29	$\frac{V_{Rk}}{1,4 \cdot \gamma_M}$	0,25	0,37
85		0,45	0,90		0,98	1,47
130		0,61	1,22		1,10	1,65

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance hollow light weight concrete Bloc creux B40  
Brick description  
Installation parameters, Displacements

**Annex C 33**

**Brick type: Hollow Light weight concrete Bloc creux B40**

**Table C62: Characteristic values of resistance under tension and shear loads**

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
			$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,b}^{2)}$
		$h_{ef}$	[kN]		
		[mm]			
<b>Compressive strength <math>f_b \geq 4 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	0,4	0,3	1,2
	SH 16x85	85	0,6	0,5	3,0
	SH 16x130	130	2,0	1,5	3,5
	SH 16x130/330	130	2,0	1,5	3,5
<b>M10</b>	SH 16x85	85	0,6	0,5	3,0
	SH 16x130	130	2,0	1,5	3,5
	SH 16x130/330	130	2,0	1,5	3,5
<b>M12</b>	SH 20x85	85	0,9	0,6	3,0
	SH 20x130	130	2,0	1,5	3,5
<b>M16</b>	SH 20x85	85	0,9	0,6	3,0
	SH 20x130	130	2,0	1,5	3,5

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,d} = N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,d}$  see TR 054

<sup>2)</sup> For  $V_{Rk,b}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,d}$  and  $V_{Rk,c}$  see TR 054


Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance hollow light weight concrete Bloc creux B40  
Characteristic values of resistance under tension and shear load

**Annex C 34**

**Brick type: Solid light weight concrete brick**

**Table C63: Description**

Brick type	Solid light weight concrete brick	
Bulk density [kg/dm³]	0,63	
Compressive strength [N/mm²]	2	
Code	EN 771-3	
Producer (country code)	e.g. Bisotherm (DE)	
Brick dimensions [mm]	300 x 123 x 248	
Drilling method	Rotary drilling	

**Table C64: Installation parameter (Edge and spacing distances)**

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing	Maximum installation torque
		$h_{ef}$	$c_{min} = c_{cr}$	$s_{cr} = s_{min \parallel} = s_{min \perp}$	max $T_{inst}$
		[mm]			[Nm]
<b>M8</b>	-	80	120	240	6
<b>M10</b>	-	90	135	270	
<b>M12</b>	-	100	150	300	10
<b>M16</b>	-	100	150	300	14

**Table C65: Displacement**

$h_{ef}$	<b>N</b>	$\delta_{N0}$	$\delta_{N\infty}$	<b>V</b>	$\delta_{V0}$	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \cdot \gamma_M}$	0,64	1,28	$\frac{V_{Rk}}{1,4 \cdot \gamma_M}$	0,50	0,75
90		0,70	1,41		0,68	1,03
100		0,21	0,42		0,54	0,81

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance Solid light weight concrete LAC  
Brick description  
Installation parameters, Displacements

**Annex C 35**

**Brick type: Solid light weight concrete brick**

**Table C66: Characteristic values of resistance under tension and shear loads**

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category		
			d/d	w/d	w/w
			40°C / 24°C	80°C / 50°C	For all temperature range
h <sub>ef</sub>	N <sub>Rk</sub> <sup>1)</sup>	N <sub>Rk</sub> <sup>1)</sup>	V <sub>Rk,d</sub> <sup>2)</sup>		
[mm]	[kN]				
Compressive strength $f_b \geq 2 \text{ N/mm}^2$					
M8	-	80	2,0	1,5	3,0
M10	-	90	2,0	1,5	3,5
M12	-	100	2,0	1,5	4,0
M16	-	100	2,0	1,5	4,0

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,p} = N_{Rk,s}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,pb}$  see TR 054

<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,pb}$  and  $V_{Rk,s}$  see TR 054

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry


Performance Solid light weight concrete LAC  
Characteristic values of resistance under tension and shear load

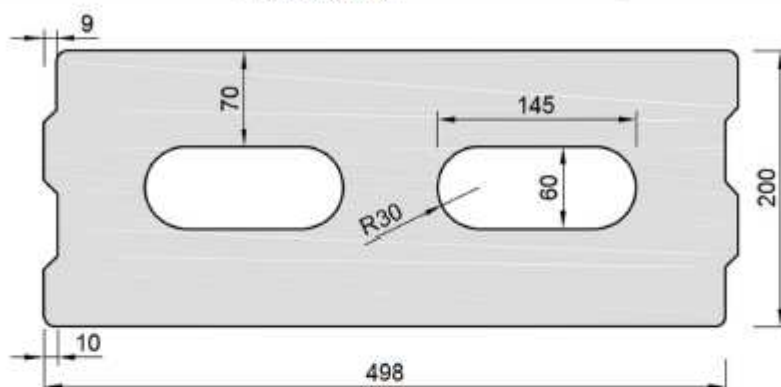
**Annex C 36**



**Brick type: Hollow light weight concrete brick – Leca Lex harkko RUH-200**

**Table C67: Description**

Brick type	Hollow light weight concrete Leca Lex harkko RUH-200	
Bulk density [kg/dm³]	0,7	
Compressive strength [N/mm²]	2,7	
Code	EN 771-3	
Producer (country code)	e.g. Saint-Gobain Weber (Fin)	
Brick dimensions [mm]	498 x 200 x 195	
Drilling method	Rotary drilling	



**Table C68: Installation parameter (Edge and spacing distances)**

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		$h_{ef}$	$C_{min} = C_{or}$	$S_{cr} = S_{min II}$	$S_{min \perp}$	$max T_{Inst}$
				[mm]		[Nm]
<b>M8</b>	SH 12x80	80	120	498	195	8
<b>M8 / M10</b>	SH 16x85	85	127			
	SH 16x130	130	195			
<b>M12 / M16</b>	SH 16x130/330	130	195			
	SH 20x85	85	127			
	SH 20x130	130	195			

**Table C69: Displacement**

$h_{ef}$	<b>N</b>	$\delta_{N0}$	$\delta_{N=}$	<b>V</b>	$\delta_{V0}$	$\delta_{V=}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{0,1}}$ $1,4 \cdot \gamma_{M}$	0,11	0,22	$\frac{V_{0,1}}$ $1,4 \cdot \gamma_{M}$	0,47	0,70
85		0,11	0,23		0,38	0,57
130		0,10	0,20		0,56	0,85

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance LECA LEX harkko RUH-200 Hollow  
Brick description  
Installation parameters, Displacements

**Annex C 37**

**Brick type: Hollow light weight concrete brick – Leca Lex harkko RUH-200**

**Table C70: Characteristic values of resistance under tension and shear loads**

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category		
			d/d	w/d	w/w
			40°C / 24°C	80°C / 50°C	For all temperature range
h <sub>ef</sub>	N <sub>Rk</sub> <sup>1)</sup>	N <sub>Rk</sub> <sup>1)</sup>	V <sub>Rk,b</sub> <sup>2)</sup>		
[mm]	[kN]				
<b>Compressive strength <math>f_b \geq 2,7 \text{ N/mm}^2</math></b>					
<b>M8</b>	SH 12x80	80	2,0	1,2	2,5
	SH 16x85	85	2,0	1,2	3,5
	SH 16x130	130	2,5	1,5	3,5
	SH 16x130/330	130	2,5	1,5	3,5
<b>M10</b>	SH 16x85	85	2,0	1,5	3,5
	SH 16x130	130	2,5	1,5	3,5
	SH 16x130/330	130	2,5	1,5	3,5
<b>M12</b>	SH 20x85	85	2,5	1,5	3,5
	SH 20x130	130	2,5	1,5	3,5
<b>M16</b>	SH 20x85	85	2,5	1,5	3,5
	SH 20x130	130	2,5	1,5	3,5

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,p} = N_{Rk,s}$ ;  $N_{Rk,s}$  according to Table C2 Annex C2; Calculation  $N_{Rk,p}$  see TR 054

<sup>2)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,pb}$  and  $V_{Rk,s}$  see TR 054


Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance LECA LEX harkko RUH-200 Hollow  
Characteristic values of resistance under tension and shear load  
Displacement

**Annex C 38**

**Brick type: Solid light weight concrete brick – Leca Lex harkko RUH-200 kulma**

**Table C71: Description**

Brick type	Solid light weight concrete Leca Lex harkko RUH-200 kulma	
Bulk density [kg/dm <sup>3</sup> ]	0,78	
Compressive strength [N/mm <sup>2</sup> ]	3	
Code	EN 771-3	
Producer (country code)	e.g. Saint-Gobain Weber (Fin)	
Brick dimensions [mm]	498 x 200 x 195	
Drilling method	Rotary drilling	

**Table C72: Installation parameter (Edge and spacing distances)**

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing	Maximum installation torque
			$C_{min} = C_{or}$	$S_{cr} = S_{min \parallel} = S_{min \perp}$	max $T_{inst}$
		$h_{ef}$	[mm]		[Nm]
M8	-	80	120	240	8
M10	-	90	135	270	12
M12	-	100	150	300	14
M16	-	100	150	300	16
M8	SH 12x80	80	120	240	8
M8 / M10	SH 16x85	85	127	255	
	SH 16x130	130	195	390	
M12 / M16	SH 16x130/330	130	195	390	16
	SH 20x85	85	127	255	12
	SH 20x130	130	195	390	16

**Table C73: Displacement**

$h_{ef}$	N	$\delta_{N0}$	$\delta_{N*}$	V	$\delta_{V0}$	$\delta_{V*}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{0,11}}{1,4 \cdot \gamma_M}$	0,09	0,18	$\frac{V_{0,11}}{1,4 \cdot \gamma_M}$	0,48	0,72
85		0,07	0,15		0,77	1,15
90		0,13	0,26		0,26	0,39
100		0,13	0,23		0,38	0,54
130		0,10	0,21		0,68	1,01

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance LECA LEX harkko RUH-200 Kulma Solid  
Brick description  
Installation parameters, Displacements

**Annex C 39**

**Brick type: Solid light weight concrete brick – Leca Lex harkko RUH-200 kulma**

**Table C74: Characteristic values of resistance under tension and shear loads**

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
			$N_{Rk}^{1)}$	$N_{Rk}^{1)}$	$V_{Rk,b}^{2)}$
			[kN]		
<b>Compressive strength <math>f_b \geq 3,0 \text{ N/mm}^2</math></b>					
<b>M8</b>	-	80	2,0	1,2	3,0
<b>M10</b>	-	90	3,0	2,0	4,0
<b>M12</b>	-	100	3,0	2,0	4,0
<b>M16</b>	-	100	3,0	2,0	4,0
<b>M8</b>	SH 12x80	80	2,0	1,2	3,0
	SH 16x85	85	2,0	1,5	3,5
	SH 16x130	130	3,0	2,0	4,0
	SH 16x130/330	130	3,0	2,0	4,0
<b>M10</b>	SH 16x85	85	2,0	1,5	3,5
	SH 16x130	130	3,0	2,0	4,0
	SH 16x130/330	130	3,0	2,0	4,0
<b>M12 / M16</b>	SH 20x85	85	2,0	1,5	4,5
	SH 20x130	130	3,0	2,0	4,5

<sup>1)</sup> For design according TR 054:  $N_{Rk} = N_{Rk,d} = N_{Rk,c}$ ;  $N_{Rk,c}$  according to Table C2 Annex C2; Calculation  $N_{Rk,d}$  see TR 054

<sup>2)</sup> For  $V_{Rk,b}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,d}$  and  $V_{Rk,c}$  see TR 054

Injection system EJOT Multifix PSF+ / Sormat ITH-Pe for masonry

Performance LECA LEX harkko RUH-200 Kulma Solid  
Characteristic values of resistance under tension and shear load

**Annex C 40**