EJOT TSSD®

The fastening element for lightweight design

The EJOT TSSD® (thermal adhesive bonding boss / German: Thermischer Stoff-Schluss-Dom) has been developed including the appropriate joining process, in order to realise fastening options for lightweight material. The process is suitable for sandwich elements with hollow core and foam core structures with different top layers preferably with fibre content. The TSSD® can be used as a screw boss for the DELTA PT® screw, or directly as fastening element.

EJOT TSSD®
Ø 9 x 12

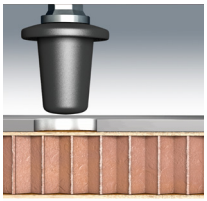
EJOT TSSD®
Ø 12 x 13

EJOT TSSD®
with ball head

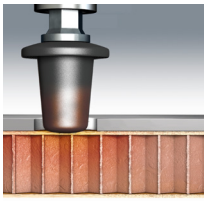
Standard based on PA6- or PP-matrix

TSSD® installation process

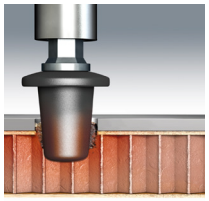
During the joining process, a thermoplastic boss is installed into the plastic component with a defined rotation speed and axial load. The installation can be done with or without a pilot hole, depending on the component material. Due to the applied axial load the fastening element penetrates the component and the frictional heat caused by the rotation causes a partial fusing of the joining parts. After a brief cooling time a thermal adhesive bond and / or mechanical and form-fit occurs, depending on the material.



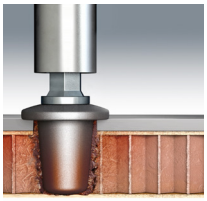
Positioning



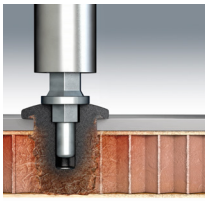
Grinding / fusing



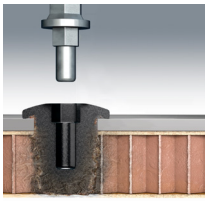
Penetrating



Complete setting



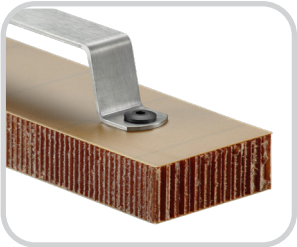
Holding with contact pressure



Tool removal

Application examples

Paper honeycomb + PUR GF top layer
Pull-out force 900 N



Aramid honeycomb + Aramid fibre top layer
Pull-out force 700–1,200 N

PP honeycomb + PP GF top layer
Pull-out force 800 N

PUR foam + 0.6mm Aluminium AW3003
Pull-out force 800 N

Rohacell foam + CRP top layer
Pull-out force 1,300-1,700 N

XPS- foam + PS GF top layer
Pull-out force 500 N

EPP foam + PP GF top layer
Pull-out force 500-900 N

PP GF Foam + PP GF top layer
Pull-out force 1,900 N

For more information please contact Sebastian Schrodt, phone +49 3625 2422-90, e-mail sschrodt@ejot.com

02.18/PDF11.24 subject to technical changes.

EJOT. Bringing it together.