



GOOD2KNOW

– ONsert® Key-facts

BOLLHOFF

Joining technology

Fast and process reliable bonding of fasteners

Adhesive

- One-component acrylate (modified)
- Compliant with RoHS Directive 2017/2102/EU
- Fast curing — full strength within seconds
- Compliant with FAR 25 and ANSI/UL 94

Designs

Plastic-metal versions

ONsert® studs



ONsert® inserts



Plastic versions

ONsert® cable management



ONsert® specials



Materials

Plastic moulding

- PA PACM 12
- PA PACM 12

Metal part*

- Steel with zinc-nickel coating, sizes M5 and M6
- Alloy EN AW-6061-T6 with X5CrNi18-10HC (1.4301, 0.1900-32)
- Alloy A286 (passivated, 0.1900-32)

Plastic

- PA PACM 12
- Bottom part
 - PA PACM 12
- Upper part*
 - PEI
 - PA
- PA PACM 12

Advantages

- Fast curing and immediate strength
- No visual impact on sensitive surfaces
- Applicable if thermal processes cannot be used
- One-component adhesive — no mixing of adhesives
- Manual and automated processing systems available

Limitations

- Permanent ambient temperature < 90 °C
- For metals: AL, steel after e-coating or painting
- For plastics: epoxy-based composites, PC, PA
- For glass: with or without paint

Manual bonding process



Application of the adhesive to the ONsert® fastener



Insertion of the ONsert® fastener into the tool holder



Placing the tool on the substrate



Tool removal and assembly

* Others on request

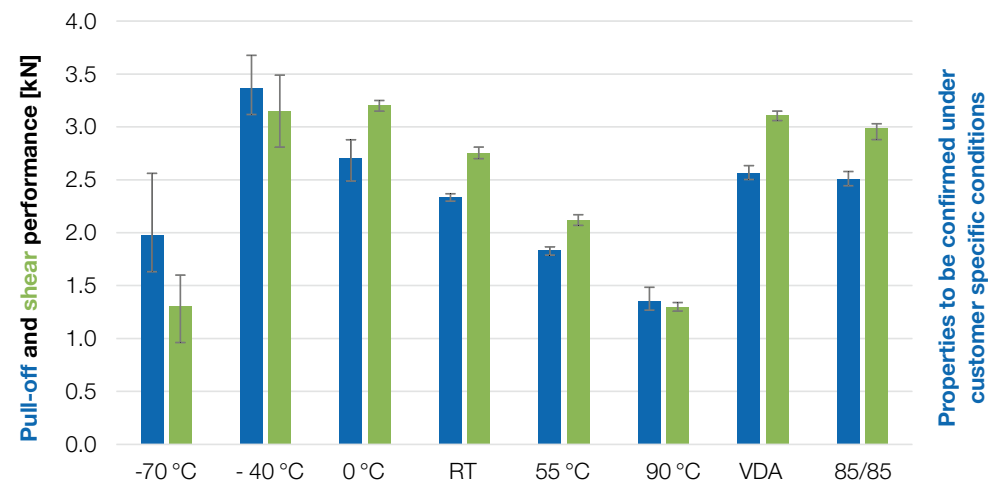


Parameters

Product type	ONSERT® stud, 10-32 20 mm
Item code	4840 221 1020
Plastic moulding	PA PACM 12
Metal part	Alloy A286
Surface	passivated
Adhesive	4839 100 4150
Amount	0.25 g
Tooling	Portable Mini, 8 sec., 90%
Substrate	aluminium
Surface	sanded
Thickness	4 mm



Typical type of failure

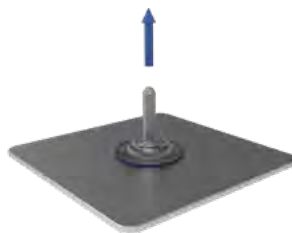


Further characteristics*

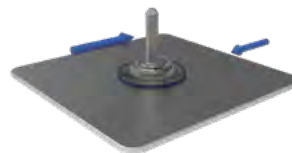
Salt spray tests	–
Static load	5 kg during 90 days at 90 °C
Torque out:	>11 Nm

- Dynamic test acc. to RTCA-DO 160F Ch. 8 - 200g
- Dynamic test acc. to RTCA-DO 160F Ch. 7 - 200g
- Nose wheel imbalance tests acc. to ABD 0100.1.2 - 200g
- Fluid susceptibility acc. to DO 160 G Sec. 11.4
- Flammability for 60 seconds vertical acc. to FAR 25 (materials)

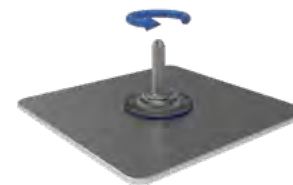
Load case



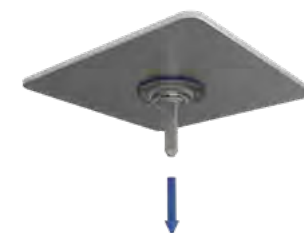
Pull-off



Shear



Torque test



Permanent load

* Not all characteristics apply to all combinations available