TECHNICAL DATASHEET

ergo.® 1307

(ergo.® 1305 resin + ergo.® 1306 hardener)

Product description

This low odor ergo.® - grade was developed to bond metals like aluminum, steel, brass and its alloys as well as ferrite, a wide range of plastics and combinations of those materials.
It is a two-component system and cures after mixing into a dry, high-strength and impact resisting polymer film. The best mixture-ratio is 1:1 (volume) and is obtainable without problems by using the common double-cartridges.

Advantages

- Fast curing system
- High tensile shear strength
- Resists against impacts as well as again peeling
- Good gap-filling behavior up to 0,10mm
- Free of solvents
- Short fixture times
- Passes test acc. to UL-94 HB at layer thickness of 3 mm

Physical properties (liquid)

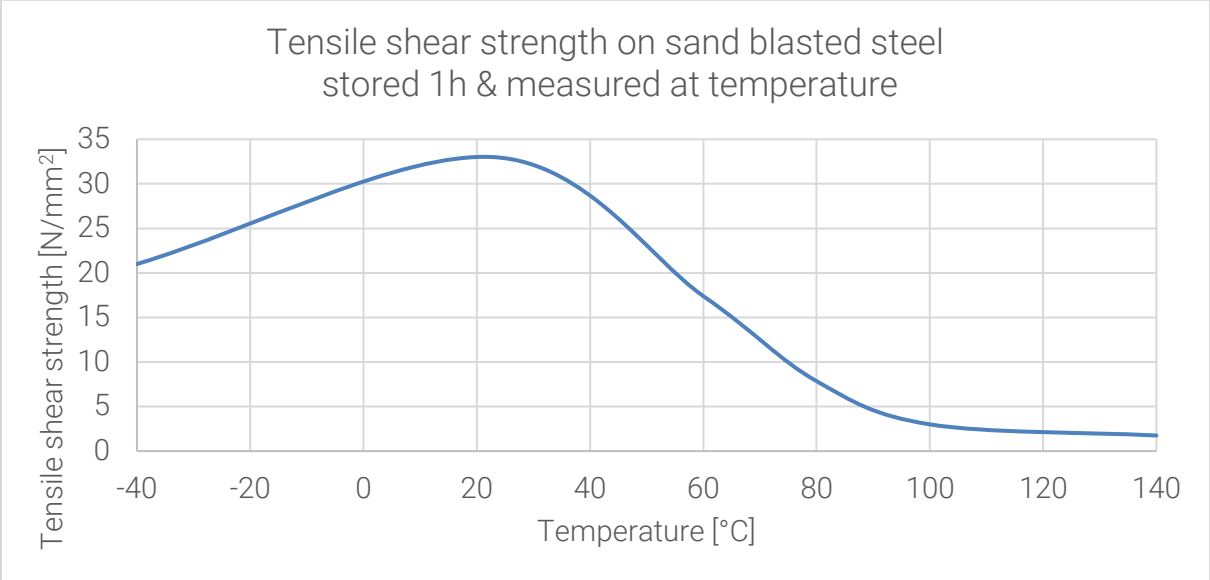
Chemical base	modified acrylic
Color ergo.® 1305 resin	white
ergo.® 1306 hardener	dark grey-green
Viscosity (Cone/plate-system, cone C-25, D=35s-1)	4000 – 6000 mPas
Density (25 °C)	1.06 – 1.14 g/cm³
Shelf life	6 month room temperature

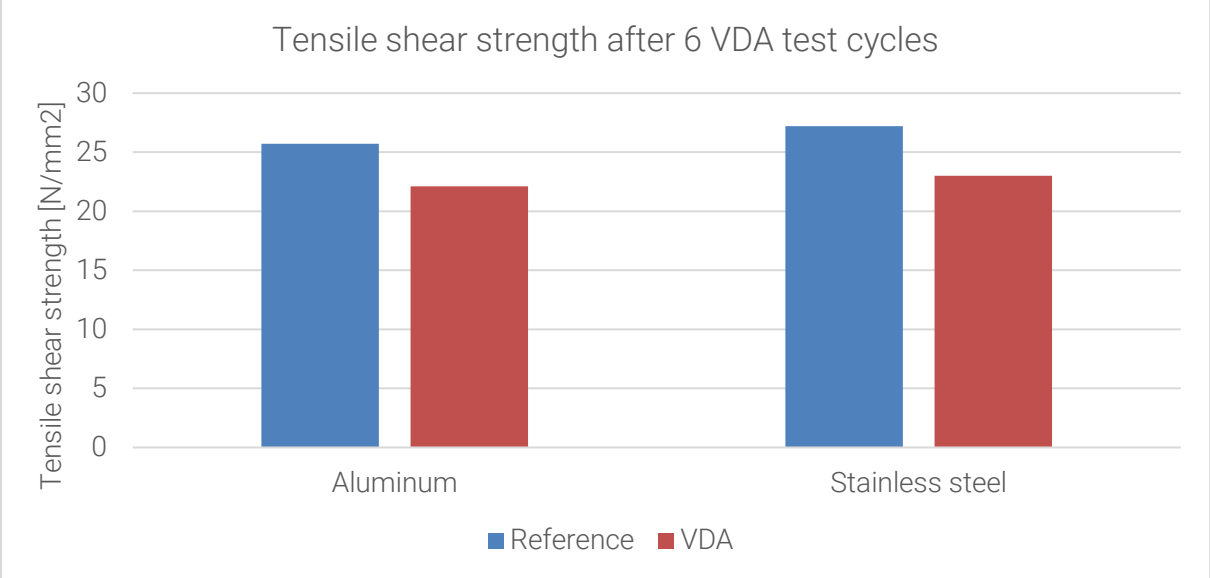
Physical properties (cured)

Tensile strength (DIN 53504 S2)	~ 21 N/mm²
Elongation at break (DIN 53504 S2)	~ 20 %
Thermal range	- 40° C up to + 130° C

Tensile shear strength acc. to DIN EN 1465, parts only degreased

Aluminum	> 20 N/mm²
Steel	> 22 N/mm²
Brass	> 17 N/mm²
ABS	> 6 N/mm² (stripe failed)
PS	> 2,5 N/mm² (stripe failed)
Shore D – hardness	70
Resistance against solvents	good


Tensile shear strength on sand blasted steel
stored 1h & measured at temperature
Tensile shear strength [N/mm²]
35
30
25
20
15
10
5
0
-40
-20
0
20
40
60
80
100
120
140
Temperature [°C]


Tensile shear strength after 6 VDA test cycles
Tensile shear strength [N/mm2]
30
25
20
15
10
5
0
Aluminum
Stainless steel
Reference
VDA

Curing

Curing system	2-component-system ratio 1:1 (volume)
Potlife	2 – 5 minutes (2g-mixture)
Initial strength	~ 10 minutes at 23°C
Final strength	~ 12 hours at 23°C

Electrical properties (cured)

Breakdown voltage	27,3 kV/mm
Volume resistivity	$2 \cdot 10^{13}$ Ohm•cm

How to use the product

Resin ergo.® 1305 and hardener ergo.® 1306 is normally applied by using the double-cartridge-system with static mixture tube.
ATTENTION: Pot life in the tube will be, depending on room-temperature, between 2 - 5 minutes. Apply the mixed glue on one part and spread it carefully over the whole bonding area. Fit the parts together and fix them at least as long as the pot life time, better 10 minutes. The product may be used also in bead on bead manner.
In this case, cure speed and final strength will be on a slightly lower level and has to be checked by the customer in his real application.

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