



TECHNICAL DATA SHEET

ergo® 1920 (ergo® 1918 resin + ergo® 1919 hardener)

Product - Description

This **very 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 of 1:1 (volume or weight) is obtainable by using the common double-cartridges with static mixer tube. Due to its insensitiveness to changing mixture ratios, it may be applied also as rope beside rope and mixed by hand

Advantages

- Very low odor
- Non-flammable liquid
- Wide range of mixture ratio
- Free of solvents
- Contains 100µm spacer to optimize gap and mechanical properties
- Good gap-filling behavior
- Excellent adhesion
- Low shrinkage
- High tensile shear strength
- Resists against impacts as well as against peeling
- Resists against paint baking
- Compatible with spot welding procedure
- Relative long fixture time allows adjustment of joined parts

Physical Properties (liquid product)

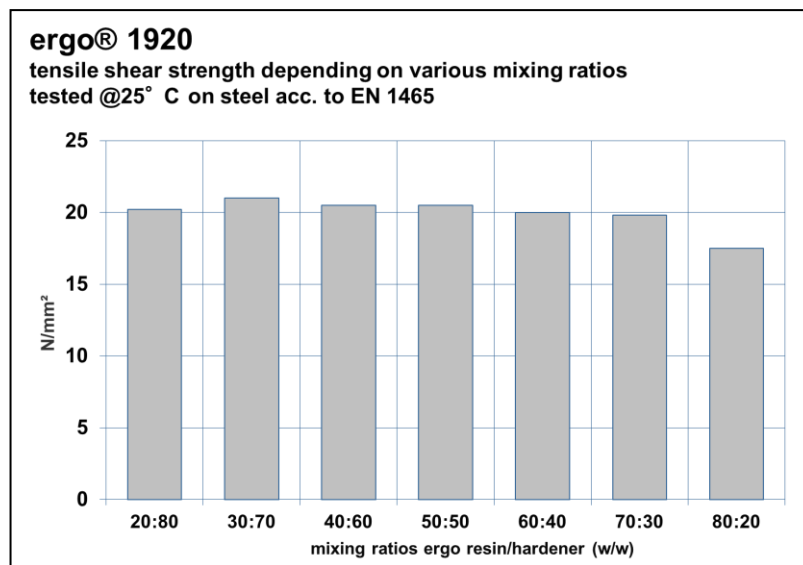
Chemical base	:	modified, toughened acrylic
Viscosity ergo 1918 (resin)	:	~ 20.000 mPas
ergo 1919 (hardener)	:	~ 20.000 mPas
Density ergo 1918 (resin)	:	1,02 g/cm ³
ergo 1919 (hardener)	:	1,03 g/cm ³
Colour resin (ergo® 1918)	:	pale yellow
hardener (ergo® 1919)	:	dark blue green
mixed and cured	:	dark brown grey
Flash point	:	101°C
Shelf life	:	6 month below 30°C
	:	12 month between +2°C and +6°C



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Curing @ 23°C

Curing system	: 2-component-system best mixture ratio 1:1 (volume or weight)
Potlife	: ~ 7 minutes
Initial strength	: ~ 8 minutes
Final strength	: ~ 2 hours



Cured product:

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

aluminum/ aluminum

after 12 h at 23°C : > 18 N/mm²

steel/ steel

after 12 h at 23°C : > 21 N/mm²

stainless steel/ stainless steel

after 12 h at 23°C : > 22 N/mm²

galvanized steel/ galvanized steel

after 12 h at 23°C : > 22 N/mm²

Impact resistance

: > 16 kJ/m² (steel, sand blasted)

Peel strength (ISO 4578)

: > 70 N/cm (steel, sand blasted)

Shore D – hardness

: 60

Shrinkage after curing

: < 8%

Thermal range

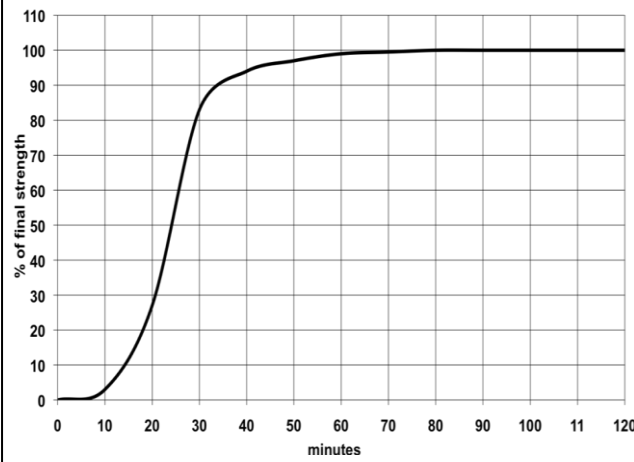
: - 40° C up to + 110° C



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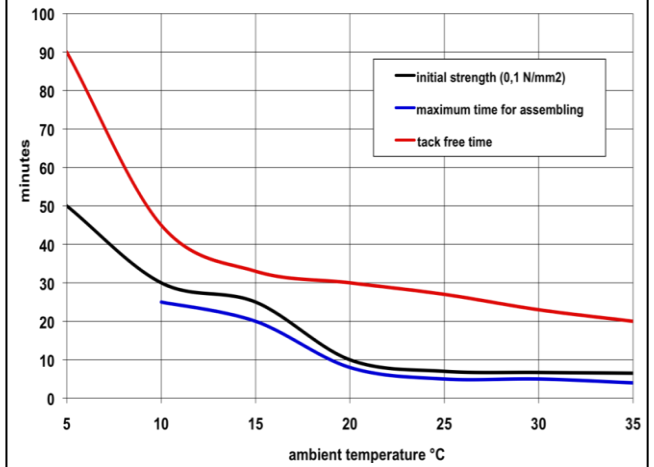
Cure-speed ergo® 1920

tested @ 23°C



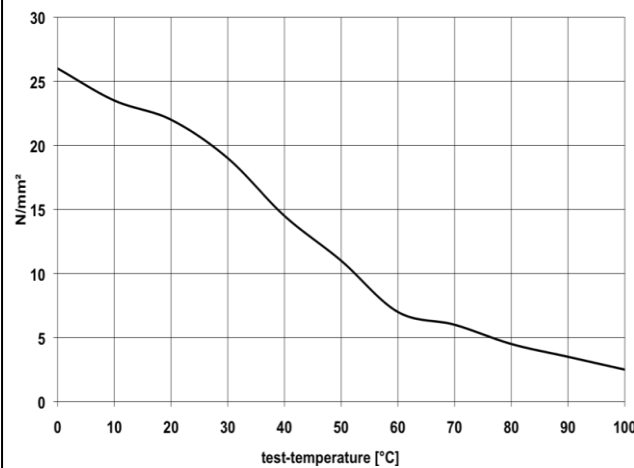
Curing properties of ergo® 1920

depending on ambient temperature



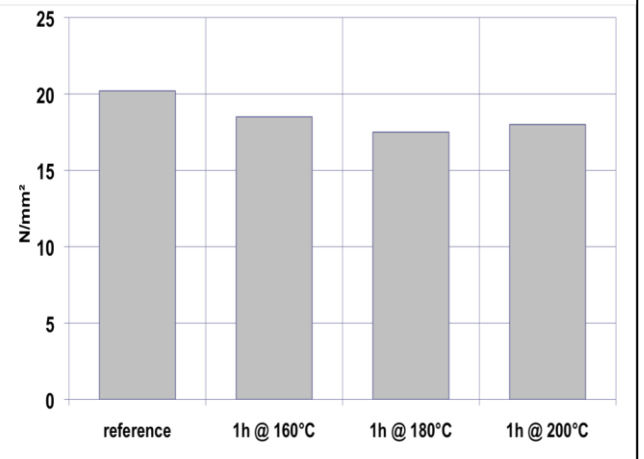
Tensile shear strength of ergo® 1920

after 24 hours @ test-temperature (EN 1465)



ergo® 1920

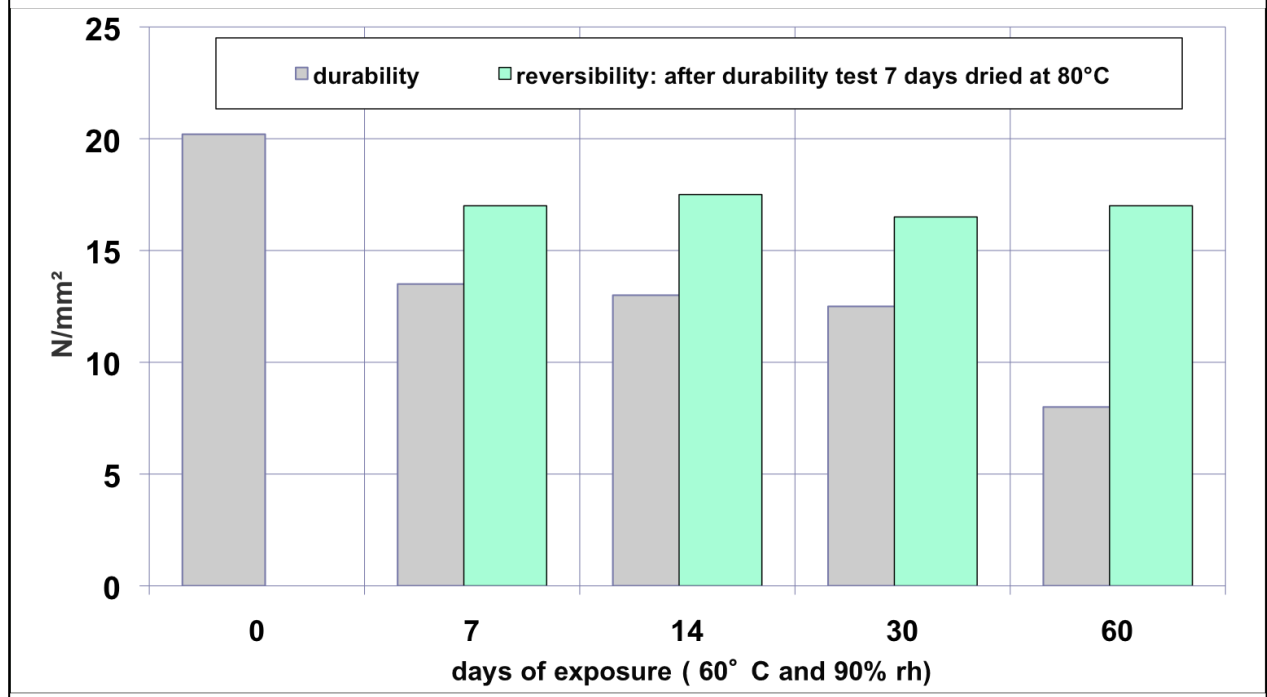
tensile shear strength after short time heating
tested @25°C on steel acc. to EN 1465



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ergo® 1920

tensile shear strength after influence of high relative humidity
tested @25° C on steel acc. to EN 1465



How to use the product

Resin ergo® 1918 and hardener ergo® 1919 is normally applied by using the double-cartridge-system with static mixture tube. ATTENTION: Potlife in the tube will be, depending on room-temperature, between 6 and 8 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 potlife time, better 10 minutes (please refer to the relating curves on page 3). The product may be used also in bead on bead or bead beside bead manner.

WARRANTY INFORMATION - PLEASE READ CAREFULLY

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