TECHNICAL DATASHEET

ergo.® 7411
(ergo.® 7407 + ergo.® 7409)

Description
ergo.® 7411 is a black, fast curing epoxy resin. The adhesive is most appropriate for bonding of metals, ceramic, glass, rubber and hard plastics. It is often used as a repair adhesive (e.g. for carbon fibre reinforced composites), for cable potting or as a structural adhesive in mechanical engineering.

Advantages
- Fast curing
- Excellent adhesion on various substrates (surfaces)
- Black
- Solvent-free, good chemical resistance

Physical properties (liquid product)

Chemical base			epoxy resin
Curing System			2-component-system
Mixing ratio (v:v)			1 : 1 (*resin : hardener*)
Mixing ratio (w:w)			100 : 96.2 (*resin : hardener*)
Shelf life			24 month at 2 – 30 °C
Viscosity (mixture) acc. to DIN EN 12092			8’000 – 11’000 mPas
Density	Mixture		1.1 g/cm³
Colour	Resin	ergo.® 7407	black
	Hardener	ergo.® 7409	clear/yellowish
	Mixture		black

Curing properties

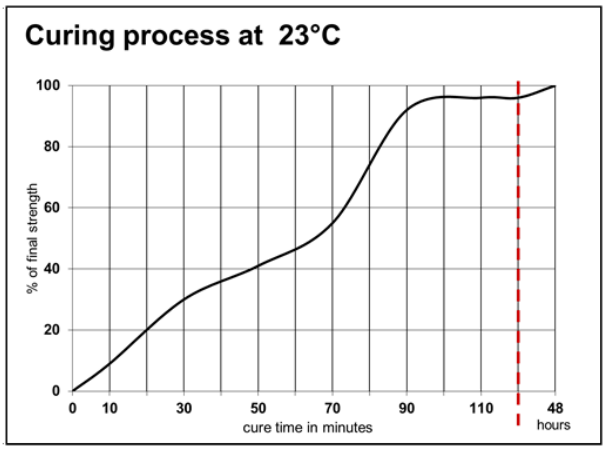
Pot life at 23°C; ~5g	~ 3.5 minutes
Fixture time at 23°C (> 1 N/mm²)	~ 7 minutes
Final strength at 23°C	~ 48 hours
Functional strength (> 10 N/mm²)	
at 23°C	~ 60 Minutes
at 40°C	~ 35 Minutes
at 60°C	~ 10 Minutes
at 100°C	~ 2 Minutes

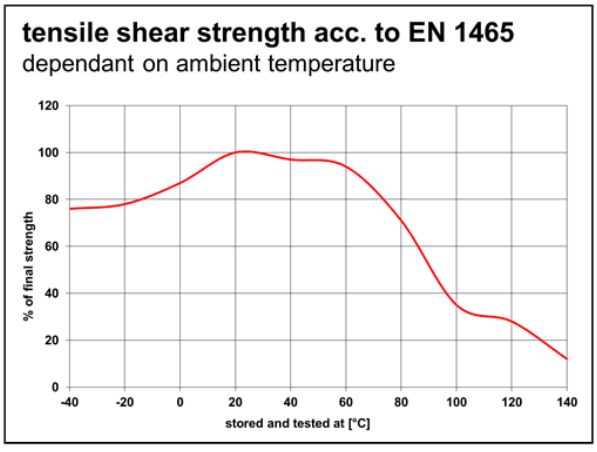
Physical properties (cured product)

Thermal range	- 60 °C up to 100 °C
Glass transition point	52°C
Modulus (DIN EN ISO 178) after 7 days at 23°C	1450 MPa
Tensile strength (ISO 527 1A) after 7 days at 23°C	~ 46 N/mm²
Elongation at break (ISO 527 1A) after 7 days at 23°C	~ 6 %
Shore D hardness	~ 75

Tensile shear strength acc. to DIN EN 1465
Curing: 16 hours at 40 °C, 24 hours at 23 °C; test temperature: 23 °C; metals corundum blasted / plastics cleaned

Steel	> 20 N/mm²
Stainless steel	> 17 N/mm²
Aluminium	> 13 N/mm²
Brass	> 15 N/mm²
Copper	> 15 N/mm²
GRP, epoxy	~ 14 N/mm²
ABS	~ 4 N/mm²
Polyamide 6	~ 4 N/mm²
PC	~ 4 N/mm²
PMMA	~ 3 N/mm²
PVC	~ 4 N/mm²





Thermal conductivity	0.18 W/m·K
Volume resistivity	$8 \cdot 10^{13}$ Ω·cm
Dielectric strength	~ 38.2 kV/mm

Precautions

For your own safety, please refer to the information of the concerned MSDS and for the correct handling the “user instructions”.

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