

TECHNICAL DATASHEET

ergo.[®] 7430

(ergo.[®] 7428 resin + ergo.[®] 7439 hardener)

Description

ergo.[®] 7430 is a grey, toughened, pasty epoxy resin for application with composite or metal parts. May be used also for other materials like glass, ceramic and hard plastics. Optimised for fast curing to achieve surface dryness for finishing (e.g. grinding).

ergo.[®] 7430 fulfils the requirements according to DIN EN 45545-2 chart 5, R1, R7 and R17 with HL1-3.

Advantages

- High toughness
- Excellent adhesion to composite materials and metals
- Fast curing and surface dryness
- Solvent-free, good chemical resistance

Physical properties (liquid product)

Chemical base		epoxy resin
Curing System		2-component-system
Mixing ratio (v:v)		1 : 1 (<i>resin : hardener</i>)
Shelf life		24 month at 5 – 23 °C
Colour	Resin	white
	Hardener	black
	When cured	grey
Density	Resin	~1.3 g/cm ³
(23 °C)	Hardener	~1.3 g/cm ³
	Mixture	~1.3 g/cm ³
Viscosity acc. to DIN EN 12092 measured at 23 °C		
	Resin	~ 60'000 mPa•s
	Hardener	~ 30'000 mPa•s
	Mixture	~ 45'000 mPa•s
		pasty, thixotropic

Curing properties

Pot life at 23 °C

40 – 50 minutes

Fixture time at 23 °C (>1 N/mm²)

~ 4 hours

Functional time at 23 °C (>10 N/mm²)

~ 8 hours

Final strength at 23°C

~ 3 – 4 days

Test method DIN EN 1465	At 23 °C	At 60 °C
Fixture time (>1 N/mm ²)	~4 hours	~17 minutes
Functional time (> 10 N/mm ²)	~8 hours	~26 minutes

Physical properties (cured product)

Thermal range

-60 °C up to +100 °C

Short time up to 140 °C

Glass transition point (T_g)

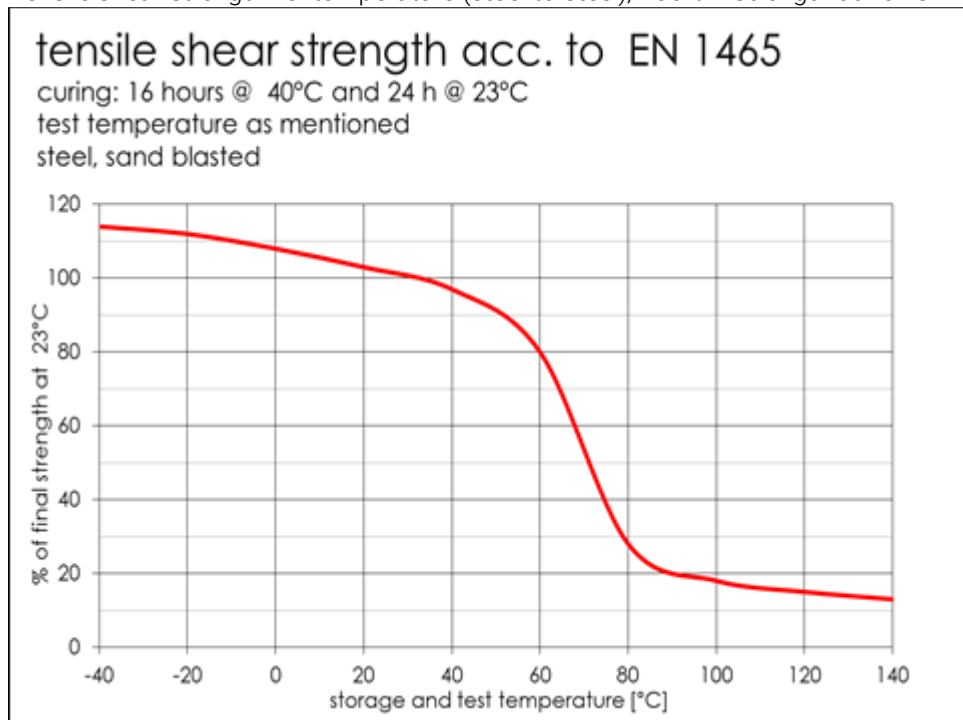
~ 56°C

Shore-D Hardness 16h at 40°C
 4d at 23°C

~ 76

~ 75

Tensile shear strength vs. temperature (steel to steel); 100% = Strength at 23 °C



Tensile strength (ISO 527-2/1A/2) After 7 days at 23 °C, test temperature 23 °C	~ 30 N/mm ²
Elongation at break (ISO 527-2/1A/2) After 7 days at 23 °C, test temperature 23 °C	~ 4 %
E-modulus (DIN EN ISO 178/A/2) After 7 days at 23 °C, test temperature 23 °C	~ 1800 MPa
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	
Steel	~ 30 N/mm ²
Stainless Steel	~ 26 N/mm ²
Aluminium	~ 23 N/mm ²
Brass	~ 24 N/mm ²
Copper	~ 21 N/mm ²
GRP, epoxy	> 12 N/mm ²
GRP, polyester	> 7 N/mm ² (broken fibres)

Special instructions for use of ergo.[®] 7430

ergo.[®] 7430 may crystallise at temperatures below 20°C under certain conditions. This is a product-specific property and completely reversible. Crystallisation therefore in no way indicates a reduced quality of the product.

In order to avoid possible crystallisation of this product, we recommend to store ergo.[®] 7430 never below temperatures of 20°C for a longer period of time.

To ensure proper workability and to reverse any crystallisation, the product should be heated to 50°C for at least 24 hours. Before use, the container should be cooled down to room temperature again to guarantee an exact mixing ratio.

Precautions

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

The information in this data sheet is based on the results of our research and experience. However, the suggestions herein concerning the use, application, and processing of the products (collectively, „the methods“) **are non-binding recommendations only**. It is the user's sole responsibility to determine the suitability and safety of these methods, based on the user's particular purpose in using the products. Before relying on the reliability and safety of any parts that are bonded using the products, it is extremely important that the user test the reliability and safety of the parts that are bonded. Failure to do so could result in serious personal injury. Because of the use of the products are within the purchaser's sole control, Kisling Corporation specifically disclaims all warranties, express or implied, including warranties of merchantability or fitness for a particular purpose, arising from the sale or use of the products described herein. Kisling Corporation specifically disclaims any liability for consequential, incidental, or other damages of any kind, including lost profits. Kisling Corporation's liability for damages shall not exceed the purchase price of the products used.

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