

Kisling | **ergo**[®]

BONDING . SEALING . ENCAPSULATION



Bonding for rail vehicle construction

Adhesives that meet the highest demands, certified according to EN 45545-2, Table 5 R1, R7, R17, for HL 1-3



EPOXY RESIN

GENERAL	ergo.® 7440	ergo.® 7430
Type	2-part epoxy resin adhesive	
Key features	<ul style="list-style-type: none"> • Excellent adhesion on composites and metals • Rapid strength development • Very high temperature resistance / good media resistance 	
Applications	<ul style="list-style-type: none"> • Lightweight construction & composite bonding: Auto body bonding, stiffening for CFRP and GFRP parts, repair of composite parts • Structural bonding even for high temperature applications • EN 45545-2 Table 5 R1, R7, R17; the requirements for HL 1-3 are fulfilled 	

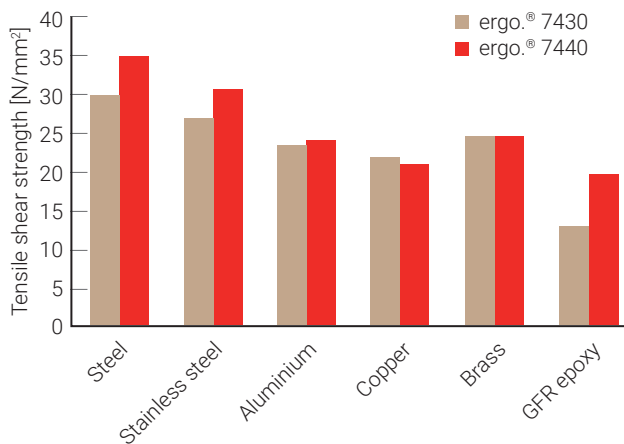
TECHNICAL CHARACTERISTICS	CONDITION	ergo.® 7440	ergo.® 7430
Pot life		40-60 min.	40-50 min.
Elongation at break	ISO 527 1A	4.6%	3.6%
Breaking tension (tensile strength)	ISO 527 1A	33 N/mm ²	25 N/mm ²
Elastic modulus (rigidity)	DIN EN ISO 178	2100 N/mm ²	1900 N/mm ²
Impact resistance	ISO 179-1	11kJ/m ²	6.8 kJ/m ²
Temperature resistance		-60°C to 180°C	-60°C to 100°C
Strength development DIN EN 1465	1 N/mm ²	3 hours	4 hours
	10 N/mm ²	4.5 hours	8 hours

Values measured on steel (unless otherwise stated)

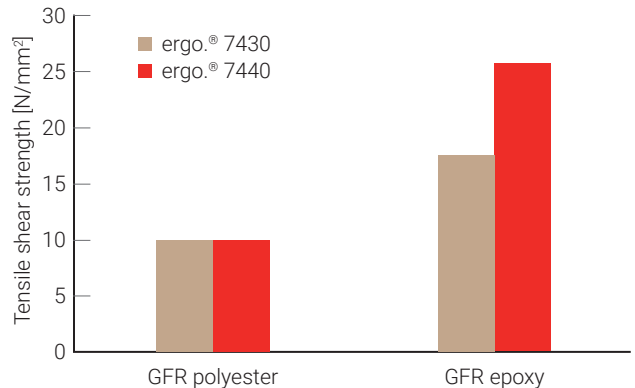
ADVANTAGES

High impact resistance	Excellent adhesion to metal	Excellent composite adhesion	Temperature resistance
High strength	Solvent-free	Excellent chemical resistance	

Tensile shear strength



Tensile shear strength (Defect presentation: Material failure)



METHYLACRYLATES

GENERAL ergo.® 1675

Type	2K methacrylate structural adhesive
Key features	<ul style="list-style-type: none"> • Excellent adhesion to composites and plastics • Rapid strength development • Odourless and flame-retardant • Colour change during curing • 75 µm spacer
Applications	<ul style="list-style-type: none"> • Lightweight construction & composite bonding: Auto body bonding, stiffening for CFRP and GFRP parts, repair of composite parts • Bonding of plastic and metal clips • EN 45545-2 Table 5 R1, R7, R17; the requirements for HL 1-3 are fulfilled

TECHNICAL CHARACTERISTICS CONDITION

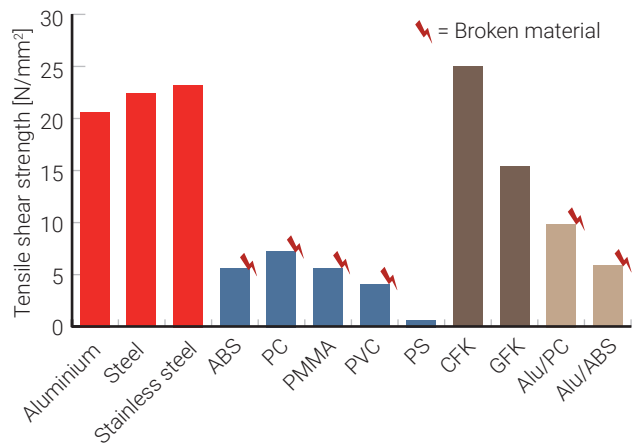
Pot life		~ 3 min.
Elongation at break	ISO 527	85%
Breaking tension (strength)	ISO 527	17 N/mm ²
Elastic modulus (rigidity)	ISO 178	780 N/mm ²
Impact resistance	IZOD	~ 8 kJ/m ²
Temperature resistance		up to 120°C
Strength development DIN EN 1465	up to 1 N/mm ²	~ 4 min.
	up to 10 N/mm ²	~ 5 min.

Values measured on steel (unless otherwise stated)

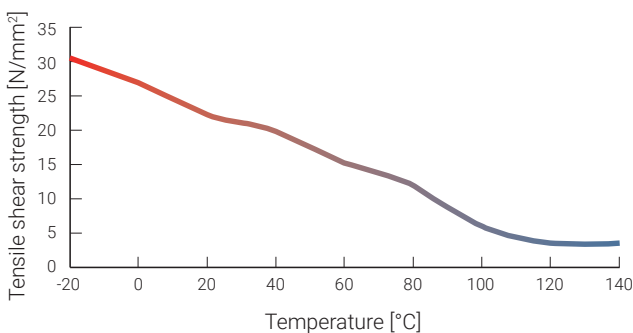
ADVANTAGES

Rapid strength development	Excellent plastic adhesion
High rigidity	Viscoplasticity
High elongation at break	Temperature resistance
Short cycle time, fixing time	Odourless and flame-retardant

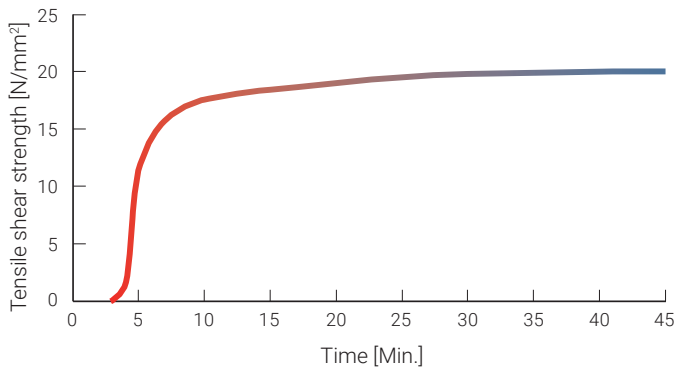
Tensile shear strength



Tensile shear strength vs. temperature



Force structure steel/steel (room temperature)





HAZARD MARKING-FREE PRODUCTS WITHOUT COMPROMISE ON PERFORMANCE AND QUALITY

Kisling has been developing and producing **products with no „hazard marking“ for 20 years.** The wide range of products makes Kisling the **leading manufacturer of adhesives with “white” safety data sheet.** These products do not carry any danger symbols.

Kisling’s commitment to sustainable products makes an important contribution to a healthy balance between functionality, health and safety at work yet still provides great functionality.

All adhesives without hazard marking are identified with the Kisling sustainability label. This label stands for **highest quality, performance and sustainability.**



Structural acrylic adhesives



Anaerobic adhesives



Instant adhesives



Structural epoxy resin adhesives



Methacrylate structural adhesives



RTV silicones

KISLING AG - STANDS FOR INNOVATION AND QUALITY.

Kisling AG is one of the leading providers and manufacturers of adhesives and sealants. We would be pleased to advise you on adhesive-related matters.