BONDING +
SEALING +
ENCAPSULATION

Kisling

TECHNICAL DATASHEET

1915
(Resin 1913 + Hardener1914)

Description
1915 is suitable for bonding of metals like aluminium, steel, brass and its alloys as well as ferrite and 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 means short fixture times and reliable, complete curing
- Resists against impacts as well as against peeling
- Tolerant to mixing ratio deviation
- Free of solvents, 100% reactive substance

Physical properties (liquid product)

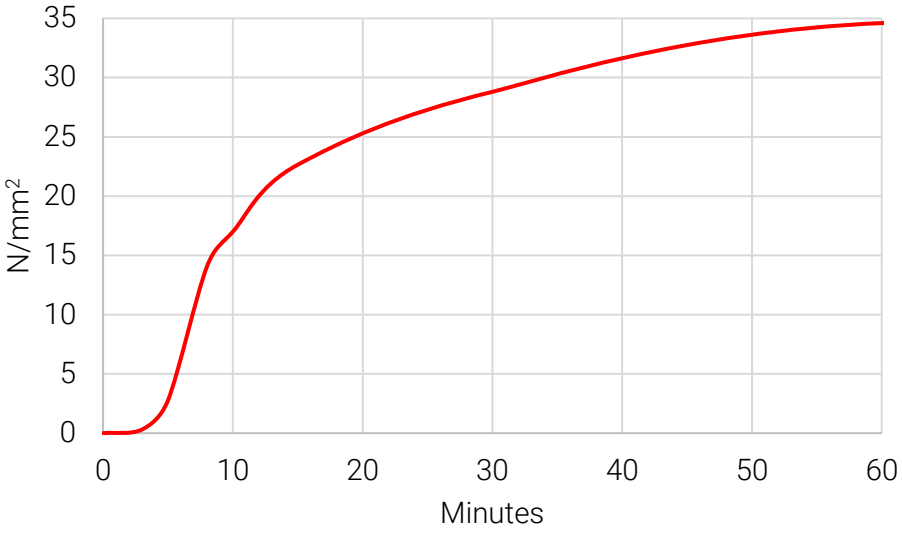
Chemical base			Modified methacrylate
Curing System			2-component-system
Mixing ratio by volume			1 : 1 (Resin 1913 : Hardener 1914)
Shelf life			6 months at ≤ 25°C
Colour	Resin	1913	Off-white translucent
	Hardener	1914	Dark blue-green
	Mixture		Brown
Viscosity	Brookfield RVT, Sp.6, 25°C, 20 rpm		13'000 – 17'000 mPa•s (slightly thixotropic)
Density	Resin	1913	~ 1.04 g/cm³
	Hardener	1914	~ 1.05 g/cm³

Curing properties

Pot life at 23°C	1 – 4 minutes
Fixture time at 23°C (>1 N/mm^2)	~ 4 minutes
Function time at 23°C (>10 N/mm^2)	~ 13 minutes
Final strength at 23°C	~ 12 hours

Strength-build up

Tensile shear strength at 23°C (EN 1465)

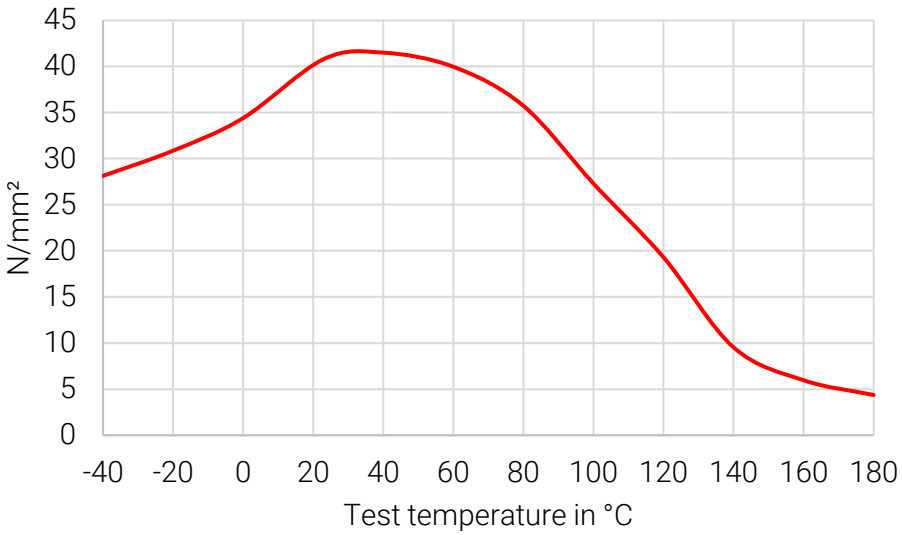


Physical properties (cured product)

Thermal range	- 50 °C up to 150 °C

Tensile shear strength at mentioned temperatures

on steel-plates, corundum-blasted; after 1 hour at mentioned test temperature (EN 1465)



Glass transition point Tg (DSC, DIN 65467)	~ 119°C
Shore D hardness (DIN EN ISO 868)	~ 80
Tensile strength (ISO 527-2/1A) after 24 hours at 23°C	~ 34 N/mm²
Elongation at break (ISO 527-2/1A) after 24 hours at 23°C	~ 7 %
E-Modulus (bending; DIN EN ISO 178) after 24 hours at 23°C	~ 1'200 N/mm²

Tensile shear strength acc. to DIN EN 1465
Curing and test temperature: 23 °C; metals and composites corundum blasted / plastics cleaned

Stainless steel	~ 33 N/mm²
Steel	~ 36 N/mm²
Aluminium	~ 38 N/mm²
Brass	~ 29 N/mm²
Copper	~ 23 N/mm²
GFRP Epoxy	~ 17 N/mm²
CFRP	~ 22 N/mm² (partly fibre tear)
ABS	~ 5 N/mm² (Material failure)
PVC (hard)	~ 4 N/mm² (Material failure)

Comparative Tracking Index (CTI)		600
Dielectric constant (ε)	at 50 Hz, 23 °C	~ 4.0
	at 0.1 MHz, 23 °C	~ 3.0
Breakdown voltage		~ 30 kV/mm
Volume resistivity		> 10^{14} Ω•cm
Surface resistivity		> 10^{14} Ω

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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