

## TECHNICAL DATASHEET

### 1915

(Resin 1913 + Hardener 1914)

#### 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 $\leq 25^{\circ}\text{C}$
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	$\sim 1.04 \text{ g/cm}^3$
	Hardener	1914	$\sim 1.05 \text{ g/cm}^3$

**Curing properties**

Pot life at 23°C

1 – 4 minutes

Fixture time at 23°C (>1 N/mm<sup>2</sup>)

~ 4 minutes

Function time at 23°C (>10 N/mm<sup>2</sup>)

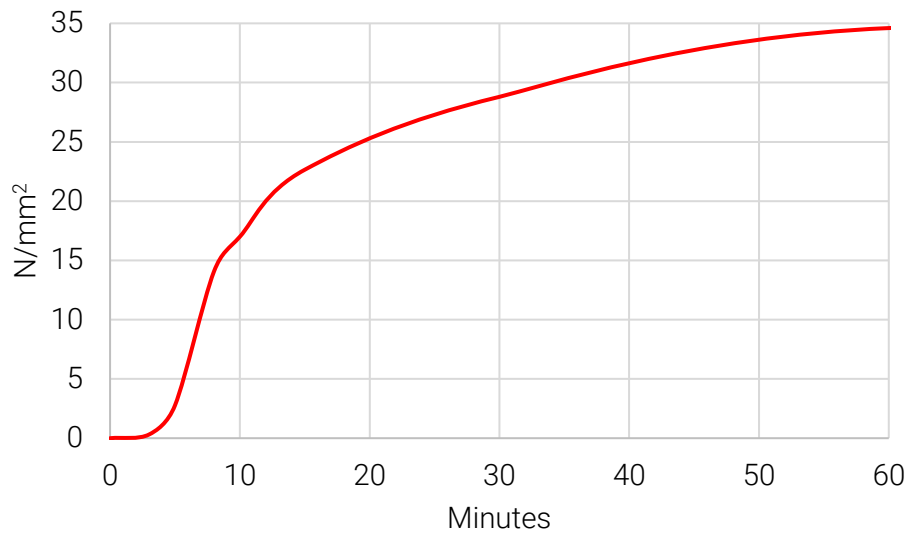
~ 13 minutes

Final strength at 23°C

~ 12 hours

**Strength-build up**

Tensile shear strength at 23°C (EN 1465)



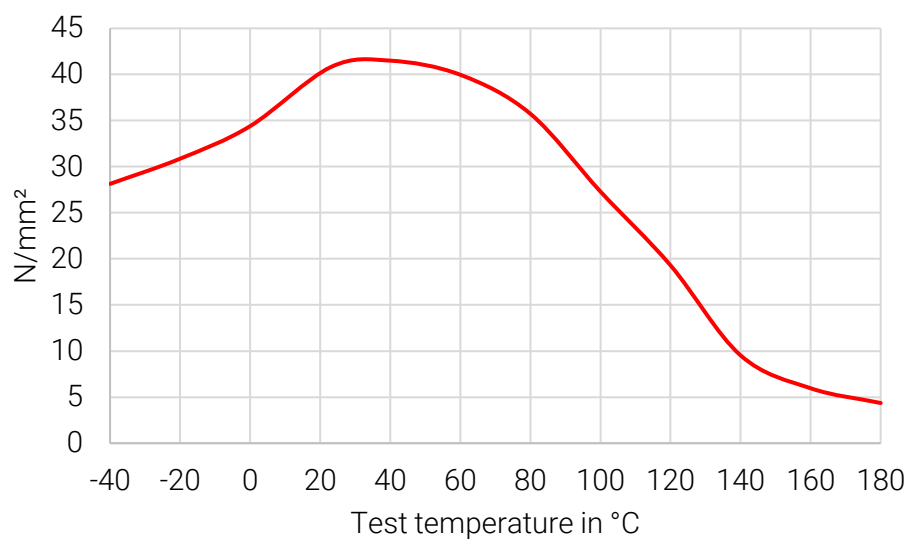
**Physical properties (cured product)**

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/mm <sup>2</sup>
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/mm <sup>2</sup>
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/mm <sup>2</sup>
Steel	~ 36 N/mm <sup>2</sup>
Aluminium	~ 38 N/mm <sup>2</sup>
Brass	~ 29 N/mm <sup>2</sup>
Copper	~ 23 N/mm <sup>2</sup>
GFRP Epoxy	~ 17 N/mm <sup>2</sup>
CFRP	~ 22 N/mm <sup>2</sup> (partly fibre tear)
ABS	~ 5 N/mm <sup>2</sup> (Material failure)
PVC (hard)	~ 4 N/mm <sup>2</sup> (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 <sup>14</sup> Ω•cm
Surface resistivity	> 10 <sup>14</sup> 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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