

TECHNICAL DATASHEET

1666

(Resin 1666A + Hardener 1666B)

Description

1666 is a non-sagging, two-part methyl methacrylate adhesive designed for structural bonding of thermoplastic, metal, and composite assemblies. Combined at a 10:1 (V :V) mixing ratio, it has a working time of 3 to 6 minutes.

1666 is mainly used as an universal grade for industrial applications where composites are involved. Normally it does not require any surface preparation. Recommended for but not limited to: ABS, PVC, PS, Composites, PMMA, Polyester, Polyurethane, Steel, Aluminum.

Advantages

- Good adhesion to a wide range of materials
- Non-dropping paste
- Bridges gap up to 10 mm
- Minimum gap 75 µm (Spacer)
- Excellent resistance against dynamic loads
- Optically visible hardening process – colour changes from blue to green
- Resistant against outside conditions and humidity
- 100% reactive compound

Product data

Chemical base		Methyl methacrylate adhesive
Curing system		2-Component-System
Mixing ratio by volume		10 : 1 (Resin 1666A : Hardener 1666B)
Viscosity at 25°C	Resin 1666A (plate/plate, shear rate s ⁻¹) (plate/plate, shear rate s ⁻¹)	200'000 – 350'000 mPa•s 15'000 – 30'000 mPa•s
	Hardener 1666B (cone/plate, shear rate 1 s ⁻¹) (cone/plate, shear rate 35 s ⁻¹)	50'000 – 85'000 mPa•s 5'000 – 15'000 mPa•s
Density	Resin 1666A	~ 1.00 g/cm ³
	Hardener 1666B	~ 1.15 g/cm ³
Colour	Resin 1666A	Off-white
	Hardener 1666B	Blue
Gap filling		Up to 10 mm
Minimum gap / Spacer		75 µm

Curing properties:

Application temperature

+10 °C to +40 °C

Open time at 23°C; ~5g

3 – 6 minutes

Fixture time at 23°C [$>1 \text{ N/mm}^2$]

~12 minutes

Functional strength at 23°C [$>10 \text{ N/mm}^2$]

~14 minutes

Final strength at 23°C

~12 hours

Tensile shear strength on steel (corundum-blasted) acc. to EN 1465 at 23°C



Physical properties (cured):

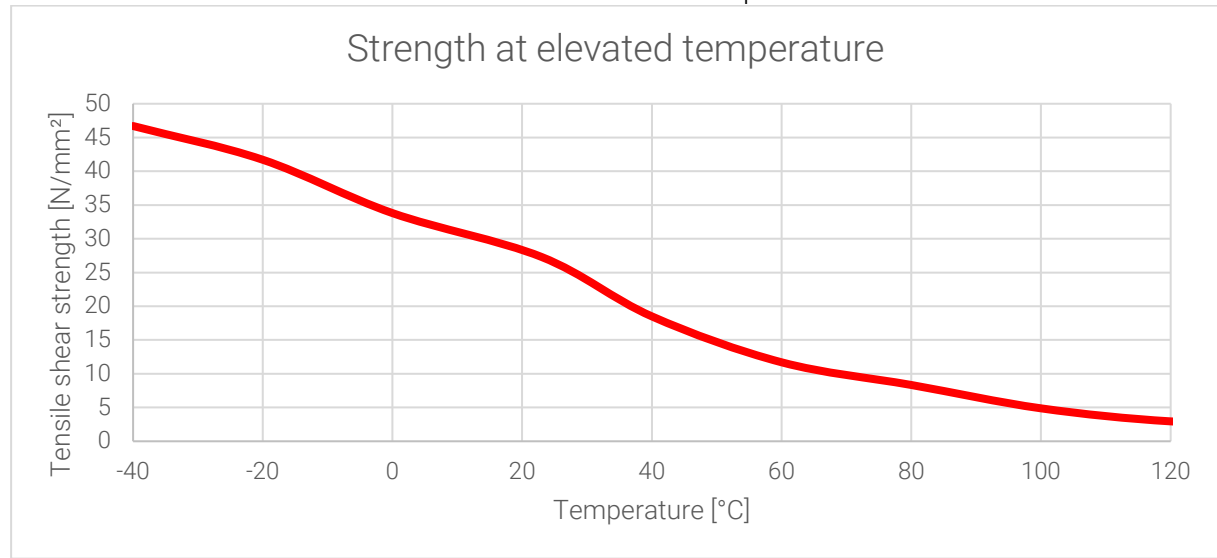
Colour (after curing)

Olive green

Usage temperature

- 55°C to + 120°C

Tensile shear strength on steel (corundum-blasted) acc. to EN 1465,
after 72 hours at 23°C and 2 hours at mentioned test temperature



Flexural modulus (DIN EN ISO 178)

~ 500 N/mm²

after 24 h at 23°C

Tensile strength (ISO 527-2/1A/20)

~ 15 N/mm²

after 24 h at 23°C

Elongation at break (ISO 527-2/1A/20)

~ 100 %

after 24 h at 23°C

Shore D hardness (DIN EN ISO 868)

~ 65

Lap shear strength (DIN EN 1465)

Curing: 24 hours at 23 °C, test temperature 23 °C, metals corundum blasted

Steel

> 23 N/mm²

Aluminum

> 21 N/mm²

GFK

> 21 N/mm²

ABS

> 5 N/mm² (failure of specimen)

PC

> 6 N/mm² (failure of specimen)

PVC

> 7 N/mm² (failure of specimen)

PMMA

> 6 N/mm² (failure of specimen)

Handling and storage

50ml Cartridge	12 months
490ml Cartridge	12 months
1666A 15kg	6 months
1666B 2.5kg oder 20kg	12 months

Stored at 4 – 23 °C in its original unopened packaging

During storage, slight serum formation may occur. This does not represent a quality issue and can be expelled when leveling the cartridge before first use.

Caution

Due to the high reactivity of the product and the exothermic curing process, never mix bigger amount of the components. The heat might evaporate parts of the formulation and cause strong smell. Do not waste exceeded material in plastic containers, because of the danger of melting.

Slight serum formation may occur during storage.

The serum does not imply any quality issues and can be ejected when levelling the cartridge before first use.

recautions

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.

TIS_1666_e/OT/18.11.2025