

Product Description

Bondchem M470 is a high elongation multi substrate structural methacrylate that has a high tensile shear strength and incredibly fast full cure. This product has been formulated with rapid part assembly in mind, supporting high volume production assembly lines with unrivalled adhesion to the latest generation of composite substrates.

Typical Applications

The ultra-fast cure system of the M470 is designed to accommodate high production parts manufacture for the automotive and leisure craft industry.

- Bonding ABS location clips to stainless and mild steel.
- Bonding threaded/assembly fasteners to GRP sections.
- Bonding PC/PMMA injection molded car components.

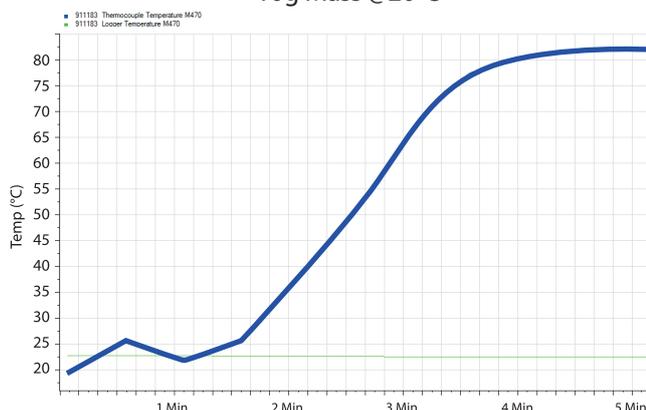
Properties of Uncured Material

Resin	Methyl Methacrylate
Colour	Grey
Appearance	Thixotropic Gel
Viscosity Brookfield T Bar	400,000 to 600,000cps
Cure System	Exothermic
Open Time	1-2 mins @20°C
Handling Strength	< 3 Minutes @20°C
SG Part A	0.96
SG Part B	1.012

Instructions For Use

1. Always consult MSDS before using M470 for the first time.
2. Carry out surface preparation where required. *
3. Remove cap, and attach mixer nozzle.
4. Dispense sufficient adhesive to ensure equal mix.
5. Apply adhesive to one surface and assemble components carefully, clamping if required.
6. It is always easier to remove any excess adhesive prior to cure using a suitable cleaner *
7. Allow the adhesive sufficient time to achieve handling strength before moving or unclamping components.

Typical Exotherm Graph for M470
10g Mass @20°C



Curing Cycle

Once mixed at the 1:1 ratio the working time of the M470 is the period whereby the adhesive remains fluid and is easily transferrable between two or more mating surfaces. Temperature, volume and substrate have a direct effect on the length of this period as the Bondchem M470 cures by an exothermic reaction. Higher temperatures and larger volumes speed the reaction causing a reduction in open and cure time. Lower temperatures and smaller volumes slow the reaction time extending both the open time and ultimate full cure time.

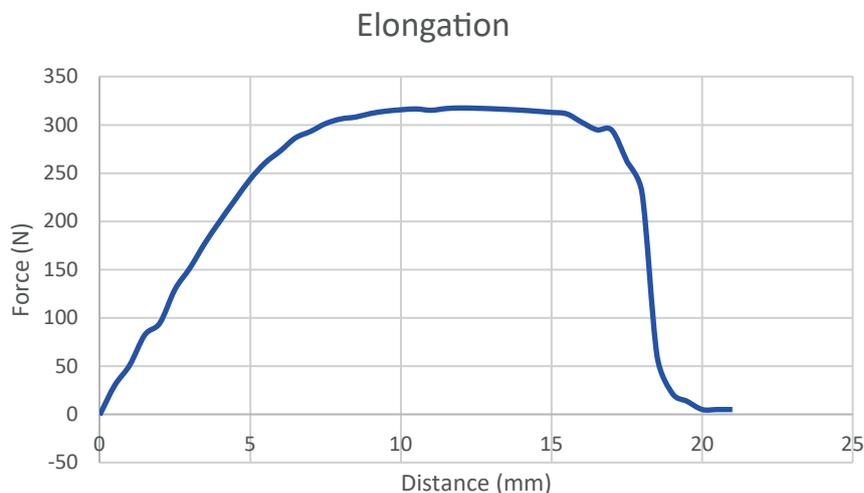
Compatible Substrates*

Aluminum	Wood
Stainless Steel	Urethanes
Mild Steel	Vinyl Esters
UPVC	Glav/Zinc Coated
Polyesters	Thermoset Plastics
ABS	Gelcoats
Acrylic	DCPD
FRP	Polycarbonate
GRP	Carbon Fibre

Performance of Cured Material

ASTM D1002 Lapshear	(Average over 16 tests)
Aluminum	28.03 Nmm ²
Stainless Steel	31.5 Nmm ²
Mild Steel	32.13 Nmm ²
Polycarbonate (substrate failure)	17 Nmm ²
ABS (substrate failure)	12.6 Nmm ²
Acrylic (substrate failure)	17 Nmm ²
Gap Fill	4mm
Standard Temperature Range	-55°C to 120°C
Shore Hardness	50 Shore D

Elongation Data



Technical Datasheet M470

Packaging

Bondchem M470 is available in 25ml syringes and 50ml, and 400ml Nylon cartridges for use with a dispensing gun. M470 is also available in 20 litre pails and 200 litre drums, for use with our BC1 dispensing system.

Storage & Shelflife

Bondchem M470 should be stored unopened in suitable hazardous storage conditions for flammable adhesives that are cool, dry location and out of direct sunlight. Stored correctly, this grade can offer a 9 month shelf life from its manufacture in the UK.

Health and Safety in Use

Bondchem M470 is a methyl methacrylate and should not be used without consulting the MSDS, which contains full information regarding the use of this product, including Transport, Disposal, Toxicological, Exposure Controls, Accidental Release and First Aid measures essential to the safe use of this product.