Bondchem

Technical Datasheet M434/M434FS

Product Description

Bondchem M434 and **M434FS** structural methacrylates are purpose built adhesives for applications intended for the powder coating process. Both systems share common attributes, differing only in functional cure-speeds, allowing good application diversity from the same core chemistry.

	M434FS	M434
Open Time	2-4 min	6-10 min
Fixture Time	4-6 min	12-15 min

The **M434** and **M434FS** grades offer a high functional tensile shear strength after the initial cure, which then further increases following an additional heat cure process. This unique chemistry allows these grades to not only maintain a high functional strength through the powder coating process, but actually improve in all aspects of functional strength performance.

Typical Applications

Both the **M434** and **M434FS** grades can bond a wide variety of substrates without the need for surface primers or conditioners.

- Bonding mild steel straps on structural sheet work.
- Sealing weld seams.
- Bonding stainless and aluminum letters and signs.
- Bonding mild steel .

Properties of Uncured Material

Resin	Methacrylate Blend
Colour	Off White/Black
Appearance	Thixotropic Gel
Viscosity Brookfield T Bar	200,000 to 280,000cps
Cure System	Non Peroxide

Performance of Cured Material

ASTM D1002 Lapshear	
Aluminum	16.09 Nmm²
Aluminium (unabraded)	15.92 Nmm²
Stainless Steel	15.50 Nmm²
Mild Steel	15.02 Nmm²
GRP	5.80 Nmm² SF
ABS	SF
Polycarbonate	SF
Gap Fill	4mm
Temperature Range	-55°C to 150ºC
Hardness	70 Shore D
UV Stability	Excellent

Compatible Substrates**

Aluminum	GRP/FRP
Stainless Steel	Granite
Mild Steel	Marble
UPVC	Urethanes
Polyesters	Vinyl Esters
ABS	Galv/Zinc Coated

Instructions For Use

1. Always consult **MSDS** before using **M434/M434FS** for the first time.
2. Carry out surface preparation where required.
3. Remove nut, attach mixer nozzle and replace nut.
4. Dispense sufficient adhesive to ensure equal mix and uniform color.
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.

Curing Cycle

Once mixed at the 10:1 ratio the working time of the **M434/M434FS** 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 M434/M434FS** 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.

Packaging

Bondchem M434/M434FS are available in 50ml and 490ml PBT cartridges.

Storage & Shelflife

Bondchem M434/M434FS should be stored unopened in suitable hazardous storage conditions for adhesives that are in a 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 M434/M434FS is a structural 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.

***Contact your Bondchem representitive for full information and usage instructions.**