

Macroplexx®

structural adhesives

TDS 5520

General Description

MACROPLEXX® 5520 is a high strength, fast curing two-part structural adhesive system, designed to offer high impact strength and fatigue endurance. On application, the grade's high viscosity is ideal for both gap filling and vertical surface applications, whilst also providing a degree of flexibility. Although primarily designed to bond Thermoplastics, this grade is capable of achieving excellent adhesion to composites, and most metals.

Typical Applications

Bus Panel Fabrication Thermoplastic Doors Architectural Fibreglass Automotive Part Assembly

Chemical Resistance

Excellent Resistant to:

- Hydrocarbons
- Acids and Bases (3-10 ph)
- Salt Solutions

Physical Appearance

Adhesive Part A

Chemical Type	Methyl Methacrylate
Appearance	Off White Paste
Specific Gravity	0.92 (approx)
Viscosity @20°C mPa·s	
Brookfield Helipath	60,000 to 120,000
Flash Point	11°C

Activator Part

Chemical Type	Epoxy Peroxide
Appearance	Blue Gel
Specific Gravity	1.12 (approx)
Viscosity @20°C mPa·s	
Brookfield Helipath	50,000 to 200,000
Flash Point	11°C

Mixture A&B

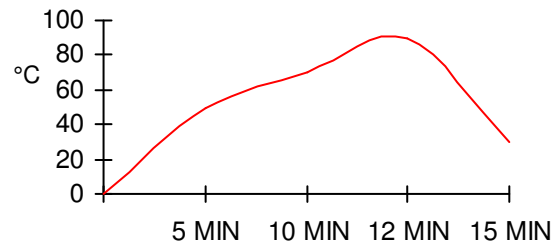
Appearance	Blue Thixotropic Gel
Viscosity @20°C mPa·s	
Brookfield Helipath < 4Min	100,000 to 150,000 cps
Mix Ratio By Weight	9:1
Mix Ratio By Volume	10:1
Working Time in Nozzle	6-8 Minutes
Fixture time Steel @ 20°C	10-15 Minutes

Note: Plastics may be faster

Typical Properties Cured Material

Tensile Strength	18 N/mm ² Average
Elastic Properties	Up to 125%
Cohesive Strength (D1002)	Up to 15 N/mm ²
Gap Filling Ability	Up to 8mm
Heat Resistance	-35 °C to 150°C

Exothermic Properties 10g Mass



Suitable Substrates

ABS	Styrenes	Aluminium	Gelcoats
Acrylics	St/ Steel	GRP	Polyesters
FRP	Vinyl	PVC	Steel

Terminology

(1) Working/Open Time: The time interval between application of adhesive to substrate, and the possible assembly/repositioning of the two mating parts @ 20°C

(2) Fixture Time: The length of time after the substrate assembly that will allow a joint to support a 1kg dead weight. (Tested on a 12mm x 25mm overlapped joint @ 20°C)



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