HYLOMAR®

TECHNICAL DATA SHEET

HYLOBOND M5101

Description

Hylobond M5101 is a toughened, two component acrylic adhesive designed for bonding a wide range of substrates. This structural methacrylate adhesive has superior peel, shear and compressive properties. Hylobond displays high toughness and can be used on gaps up to 15mm. The adhesive has excellent fatigue and weathering resistance.

Typical Properties

Uncured Material		
	Adhesive	Activator
Mixing Ratio (By Weight)	9	1
Mixing Ratio (By Volume)	10	1
Specific Gravity (gml^{-1})	0.97 – 1.01	1.04 – 1.14
Viscosity (@22^0C, cPs)	90,000 – 130,000	75,000 – 110,000
Colour	Cream	Black

Mixed Material	
Geltime (@22^0C)	≈5min
Cure Time (@22^0C)	14 – 18min
Gap Filling	≤15mm
Colour	Grey

Cured Material	
Tensile Strength	16 Nmm^{-2}
Elongation	75%
Shear Strength PVC/ABS	15 Nmm^{-2}
Shear Strength (Aluminium)	18 Nmm^{-2}
Shear Strength (Stainless Steel/Acrylic)	22 Nmm^{-2}

Recommended Substrates

Metals

Aluminium, stainless steel, carbon steel, powder coated metals.

Plastics

Acrylics, ABS, PVC.

Composites
Urethanes, vinyl esters, polyesters, carbon fibre, GRP/FRP.

Not suitable for
Polyethylene, PTFE, nylon, galvanized metals, polypropylene.

Instructions for Use

The surface to be bonded can have a great impact on the cured properties of Hylobond. Care must be taken to ensure that all traces of oil, grease and dirt are removed from the substrate. This can be done with a degreasing agent or solvent such as acetone. Abrading or etching the surface can greatly improve the properties of the bonded joint, if this is done a second degreasing process is highly recommended.

Prior to dispensing it is important to extrude the product onto a non-bonding surface to ensure that bead coming out of the nozzle is a uniform grey colour. As soon as the bead is the correct colour the product should be used immediately to prevent curing in the nozzle. Enough adhesive should be used to fill the bond gap before the parts are joined. Once the substrates are joined sufficient pressure should be applied (e.g. by clamping) to avoid dry bonding and prevent movement in the joint. These processes must be completed before the geltime expires.

The optimal application temperature is about 20^0C, the geltime and cure time will be affected at temperatures much higher or lower than this. The viscosity is also affected by temperature so to ensure a consistent extrusion rate and geltime the temperature should be kept constant.

Safety

Hylobond is intended for industrial use and should only be used by a skilled individual provided with the correct protective equipment. See SDS for detailed information regarding the safe use of Hylobond.

Storage

Store in a cool, dry place between 5^0C- 25^0C (41^0F-77^0F) with adequate ventilation.

Packaging

Please contact our sales department for details.