TECHNICAL INFORMATION

5035 White UVS 25 Minute

DESCRIPTION

5035 White UVS 25 Minute is a two part system, which is fast setting when mixed via a static mix nozzle at room temperature. It is a high viscosity, non-sag material, the mixed material is ideal for all types of gap filling requirements on steel, aluminium, polycarbonates and general plastics. It is also very good on vertical surface bonds. Because it is Methyl Methacrylate based, it exhibits excellent structural strength even without priming the surfaces. As a result of its macro structure the bonds formed show excellent durability and high peel strength even in big gaps, it also displays excellent solvent and environmental resistance, resisting fuels, lubricants cleaning chemicals and fluids.

5035 White UVS 25 Minute also includes a UV stabilisation package which resists yellowing of the cured adhesive under normal environmental exposure to UV light.

TYPICAL USES OF 5035 White UVS 25 Minute

Structural joining of metals, plastics, composite bonding and on ceramics where high impact strengths are needed. Applications include wind turbine, vehicle roofs, fibreglass, sports goods, automotive spoilers, vents, housings.

SOLVENT AND ENVIRONMENTAL RESISTANCE

Excellent Resistant to:

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

	Temp	1000hrs	2000hrs
RH100%	40°C	60%	35%
Salt spray	50°C	75%	60%
Water Glycol	20°C	75%	65%
Motor Oil	40°C	75%	93%
Gasoline	40°C	95%	92%
IPA	40°C	75%	90%

Heat ageing properties tested at temp indicated
As a % initial strength when cured 5 days @ 20ºC

Hours	500	1000	2000	°C
100% RH @20°C	90	95	98	@60°C
100% RH @20°C	65	55	60	@87°C

TYPICAL PROPERTIES UNCURED ADHESIVE

Chemical Type:	Methyl Methacrylate
Appearance:	White Gel
Specific Gravity:	0.97 (approx)
Viscosity @ 20°C MPas (cPs)	
Brookfield Helipath:	130,000 – 150,000
Flash Point:	11°C (51°F)

ACTIVATOR

Chemical Type:	Methyl Methacrylate
Appearance:	Slightly Off-White Gel
Specific Gravity:	0.95 (approx)
Viscosity @ 20°C MPas (cPs)	
Brookfield Helipath:	150,000 – 200,000
Flash Point:	11°C (51°F)

MIXTURE

Appearance:	White Gel
Specific Gravity:	0.97 approx.
Viscosity @ 20°C MPas (cPs)	
Brookfield Helipath	150,000 – 200,000
Mix Ratio by weight:	1 to 1
Mix Ratio by volume:	1 to 1
Working time in nozzle:	17 – 20 minutes
Working life 10g mass[(1)]:	17 – 20 minutes
Fixture time Steel @ 20°C[(2)]:	22 – 25 minutes
Operating Temperature:	-55 to 120°C

TYPICAL PROPERTIES CURED MATERIAL

Hardness ASTM Shore D:	75
Shrinkage (lab test @ 7 days):	5%
Tensile Strength at break[(3)]:	20Nmm^{-2} average
Elongation at break:	2.4%
Typical Handling Strength:	2 – 4 hours (Heavy Duty)

ASTM D1002 Lapshears

On steel/steel:	Up to 30 Nmm^{-2}
On aluminium/aluminium:	Up to 27 Nmm^{-2}
On polycarbonates:	Up to 13 Nmm^{-2} **
On ABS/ABS:	Up to 8 Nmm^{-2} **

** Substrate failure

Terminology

[(1)]Working (open) Time – The time interval between application of adhesive to substrate, and the possible assembly of the two mating parts @ 20ºC.

[(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 @ 20ºC).

[(3)]Reading averaged over a selection of test parts.

12/09/08 AC