MBS 3295 Pink & Green Acrylic Adhesive

Technical Datasheet

The MBS 3295 Pink & Green is a two-part, second-generation toughened acrylic structural adhesive. This product is designed to combine high sheer and peel strengths with high-temperature resistance. Once both parts are introduced to each other, they start to produce a rapid and strong bond within minutes. It will cure to a handling strength in approximately 3 to 5 minutes depending on the ambient temperature and will fully cure in one hour. The MBS 3295 can be applied to untreated surfaces, but for best results, we recommend lightly abrading both surfaces to remove any dirt or debris and cleaning with our MBS 1943 IPA wipes. The MBS 3295 will tolerate usual weathering and temperatures between -40°C and +150°C but it is not recommended for prolonged immersion in water.

Features

- High Strength
- Toughened Acrylic Adhesive
- Bonds to a wide range of materials
- Fast curing time

Technical Values	
Part A: Green	Part B: Pink
Colour	Opaque Grey
Viscosity	5,000 mPas
Density	1.2 g/cm^3
Flash Point	10°C
Glass Transition Temperature DSC	50°C - 55°C
Tensile Strength	8 MPa
Elongation at break	4%
Storage Temperature	Max. 25°C
Shelf Life	9 Months

Curing Properties	
Mix Ratio	1:1
Handling Time	3 – 5 Minutes
Handling Strength Time	5 Minutes
Full Strength	1 Hour

Cured Properties	
Hardness Shore D	55
Temperature Resistance	-40°C - 150°C
Shrinkage	<1%
Water Absorption	<9%

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Test Results

The test results shown were achieved after following our surface preparation guidance using Isopropyl Alcohol (IPA) and dried in a desiccator for 24 hours.

Material	Tensile Shear Result
Steel/Steel	276Kg/cm^2
Zinc Chromate/Zinc Chromate	180Kg/cm^2
Nickel/Nickel	193Kg/cm^2
Chrome/Chrome	162Kg/cm^2
Brass/Brass	228Kg/cm^2
Stainless Steel/Stainless Steel	204Kg/cm^2
Copper/Copper	244Kg/cm^2
Aluminium/Aluminium	224Kg/cm^2
Zinc/Zinc	214Kg/cm^2
Epoxy FRP/Epoxy FRP	84Kg/cm^2
Phenol FRP/Phenol FRP	65Kg/cm^2
PVC/PVC	35Kg/cm^2
Polyester/Polyester	31Kg/cm^2
Styrol/Styrol	24Kg/cm^2
ABS/ABS	47Kg/cm^2
PA-6 (Nylon 6)	20Kg/cm^2
Glass	50Kg/cm^2

Lap Shear Strength	Result
Young's modulus E (PE-Norm 056)	462MPa
Tensile strength (PE-Norm 014)	8MPa
Elongation at break (PE-Norm 014)	4%
Lap shear strength (steel/steel)	27 MPa
Lap shear strength (stain. steel/stain. steel)	21 MPa
Lap shear strength (Aluminium/Aluminium)	22 MPa
Lap shear strength (PC/PC)	*5 MPa
Lap shear strength (PMMA/PMMA)	*3 MPa
Lap shear strength (polyester/polyester)	3 MPa
Lap shear strength (PVC/PVC)	8 MPa
Lap shear strength (ABS/ABS)	*8 MPa

*Substrate failure

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Additional Test Data

In addition to the manufacturer's published data on the tensile shear strengths achievable on similar materials under ideal conditions, Multibond Solutions Ltd commissioned further independent tests on material combinations found specifically within the commercial signage industry. The materials were prepared and bonded under typical workshop conditions. The results are given below:

Material Kg/Inch²	KN	Kg/Inch²
Aluminium/Aluminium (Mill Finish)	>5.00	>500
Aluminium/Aluminium (Chromated Finish)	>5.00	>500
Stainless Steel/Aluminium (Mill Finish)	>5.00	>500
Stainless Steel/ Stainless Steel	>5.00	>500
Aluminium (Chromated)/Acrylic	3.18	318
Aluminium (Chromated)/Polycarbonate	3.00	300
Acrylic/Acrylic	2.12	212
Acrylic/Polycarbonate	2.27	227
Polycarbonate/Polycarbonate	3.07	307
Komacel/Komacel	0.65	65.6
Zintec/Zintec	5.00	>500

SAFETY AND HANDLING

Please read the Material Safety Data Sheet before handling or using this product. Adhesive components contain methyl methacrylate monomer and are flammable. Always use in a well-ventilated area. Floor-level extraction and large quantities of moving air greatly facilitate ventilation. Both materials must be stored in a cool place away from sources of heat and open flames or sparks. Keep containers closed when not in use. Prevent contact with skin and eyes. In case of skin contact, wash with soap and water. In case of eye contact, flush with water for 15 minutes and seek medical.

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Directions

1. Clean surfaces before and after abrasion with a fresh MBS 1943 IPA wipe. Clean the surface with single end-to-end strokes, never in a circular motion as it does not sufficiently clean the surface. Allow 5 – 10 minutes to flash off (dry) before proceeding.
2. Remove the pin and cap and using a 1:1 ratio 400ml applicator, dispense both parts simultaneously to ensure both parts are flowing evenly through the attached mixer nozzle provided.
3. Apply adhesive once mixed to one surface and assemble components carefully.
4. If clamping is required, only apply enough pressure to ensure the two components do not move during curing, excessive clamping will extrude the adhesive from within the joint and will impact the final bond-line strength.
5. It is always easier to remove any excess adhesive before curing using our MBS 1943 IPA Wipes.
6. Allow the adhesive time to achieve handling strength before moving or unclamping components.
7. Never leave a used nozzle on the cartridge for extended periods, i.e., overnight or weekends, always remove the nozzle and replace the cap to prevent back curing in the adhesive cartridge.

Disclaimer

The information contained in this data sheet is believed to be accurate and is provided for information only. Multibond Solutions Ltd makes no representation or warranties of any kind concerning this information. It is the user's responsibility to determine the suitability of this product for any intended use. Multibond Solutions Ltd does not assume responsibility for tests or performance results obtained by the user. The user assumes all risk and liability connected with the use of this product. The user should adopt such precautions and use guidelines as may be advisable for the protection of property and persons against any hazards that may be involved in this product's handling or use. Multibond Solutions Ltd specifically disclaims any liability for consequential or incidental damages of any kind arising from the handling or use of this product. The information contained in this Technical Data Sheet offers no assurance that the product use, application, or process will not infringe on existing patents or licenses of others.

The values noted in this technical data sheet are typical properties and are not meant to be used as product specifications.

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