MS POLYMER

TaftGrip

MS Polymer Adhesive Sealant

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PRODUCT DESCRIPTION

TaftGrip is a single component, non-corrosive, odourless, medium viscous and low modulus/sealant adhesive based on Silane Modified polymer free of solvents, isocyanates, silicones and PVC. The product cures on exposure to atmospheric humidity to form a durable elastomer and resists aging, weathering and thermal cycling without hardening, shrinking or cracking.It has good adhesion to a wide variety of substrates without primer, and compatible with suitable paint and epoxy coated systems. Typically designed for interior and exterior applications and demonstrates good UV resistance.

TYPICAL APPLICATION AREAS

- Bus construction
- Metal Industry
- Signage
- Building & construction
- Automotive window glass glazing
- Railway carriage
- Ship and boat building
- Air condition and ventilation industries
- Timber floor decking
- Outdoor landscaping

PHYSICAL PROPERTIES (UNCURED)

PROPERTIES	TYPICAL VALUE
Chemical Type	Silane modified polymer
Appearance	Smooth Paste
Colour	Off-White / Grey
Components	One component
Specific gravity at 30 ± 2°C ATM*-R004 (JIS* K6820)	1.58 - 1.62
Flow, sag or slump at 30 ± 2°C ATM-R016 (ASTM* C639)	Non Sag
Extrusion rate for 20g at 30 ± 2°C, orifice 2.6, pressure 3.0 kg/cm², ATM-R047 (BS* 5889), seconds	20 - 60
Paint compatibility, ATM-R370	In principle compatible
Flash Point	234 deg C

CURING PERFORMANCE

The product cures on exposure to moisture in the air, typically developing a skin within minutes, becoming tack free within minutes to hours. After skin formation, cure continues inward from the surface. The product develops functional cure in 24 hours and cures fully in 7 days at 30±2°C, 55±5% RH. The rate of surface/depth cure depends on the relative humidity and temperature of the environment of the adhesive and depth of the extended at lower humidity levels. The larger the unexposed area, the longer the curing time. Curing tested at 30 ± 2°C, 55 ± 5% RH

CURING PERFORMANCE (TABLE)

PROPERTIES	TYPICAL VALUE
Skin forming time – minutes Surface cure, ATM-R017	5 -10
Depth cure, ATM-R015. mm/day	> 4.00
Application temperature °C	10 to 40
In service temperature °C	-40 to 90
Short exposure (up to 1 h) °C	120

TYPICAL PROPERTIES OF CURED MATERIAL

PROPERTIES	TYPICAL VALUE
Tensile Strength, ATM-R020 (ASTM D412) Kg/cm²	>7
Elongation, % ATM-R020 (ASTM D412)	300
Durometer Hardness, Shore A ATM-R019 (ASTM D2240)	45 - 50
Shear strength, Kg/cm² ATM-R022 (ASTM D1002) MS - MS	8
MS – ABS	5

CHEMICAL RESISTANCE

The product is resistant to fresh water, sea water, water, motor oil, isopropanol, salt fog (95%RH), 85% Temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils. Non-alcohol, concentrated mineral acids and caustic solutions or solvents. The information provided is for guidance only.

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

HANDLING

Before handling, read product safety data sheets (MSDS) and container labels for safe use.

DIRECTIONS FOR USE

Substrate preparation Surfaces to be adhered or sealed should be free of dirt, oil and other contaminants. For best performance it may be necessary to clean the surface with a solvent such as acetone or methyl ethyl ketone or with coarse lint free cloth or roughen the surface. High bond strength can be achieved without use of a primer. Pre-testing is suggested to determine if a primer is needed. Contact Vitrochem technical representative for primer recommendation. Plastic surface may contain external release agents, which are used during manufacturing and these agents must be removed prior to bonding / sealing. Note that the adhesive may not show adhesion to polyethylene, polypropylene, polyacetal, PTFE, Teflon. Substrates not mentioned should be subjected to trials.

METHOD OF APPLICATION

Adhesive/sealant can be applied directly from cartridge (300ml) or sausage (500ml), manual or pneumatic applicators. A plastic nozzle is supplied which can be desired orifice and shape to facilitate application. Apply a continuous bead of adhesive/sealant to prepared surface/joint in a uniform thickness. If spreading is required, use enough pressure to spread the adhesive/sealant and displace any trapped air The adhesive/sealant bead size to be specified is a function of anticipated gap size for the part. Do not apply at temperatures below 10°C or above 40°C. Once opened the product should be used within a relatively short time. Product stored at low temperatures will lead to an increase of viscosity, resulting in a lower extrusion rate. This can be avoided by bringing the sealant to room temperature prior to application.

DISPENSING

The product can be dispensed using a manual dispensing gun, Pneumatic dispensing gun or customized dispensers. While using pneumatic dispensers, the product should be dispensed using 2 or 5 bar pressure.

WORKING TIME

Moisture curing begins immediately after the product is exposed to the atmosphere, any tooling should be completed before the skin forms using a spatula or putty knife, occasionally moistened with a soap solution. To ensure integrity of bond/seal between mating parts, parts to be assembled before the sealant skins over. Higher humidity will accelerate this cure time. Excess uncured material can be easily wiped away a using a suitable non-polar solvent. If cured, the material can be removed mechanically. The bond/seal should be allowed to cure fully before subjecting to heavy service loads.

OVER PAINTING

The sealant can be over painted with most conventional paint systems after skin forming (wet on wet). Best results are obtained if the sealant is allowed to cure fully before painting. The paint must be tested for compatibility by carrying out preliminary trials due to large scale of different types of industrial paints. The over painted product should not be exposed to baking temperatures until it has attained full cure. It should be noted that the hardness and film thickness of paint may impair the elasticity of the sealant and lead to cracking of the paint film. Care should be taken when non flexible paint system are used which may impair the elasticity of the adhesive, impair joint movement and lead to cracking of paint PVC based paints and paints that dry by oxidation (oil or alkyd resin based) are generally not suitable for application over the sealant.

STORAGE

The optimal storage is 10°C to 30°C below or more than the temperature specified, Storage has impact on the product properties. Material removed from containers may be contaminated during use. Do not refill the product to the container. Sealant cures by moisture. Keep the container tightly closed when not in use. A plug of cured material may form in the tip of tube or cartridge, which can be easily removed and will not affect the remaining contents. If additional information is required, please contact our local customer service representative.

SHELF LIFE

When stored at or below 30°C, in the original unopened containers, this product has a shelf life of 9 months from the date of manufacture.

PACKAGING

Available in 300ML HDPE Cartridge & 600ML Aluminum Sausage

COMPLIANCE AND QUALITY

RoHS statements and Safety Data Sheets for this product are available on request. Contact the MightyLoc team and we will send the current documents.

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All recommendations for the use of our products are based on the current state of our knowledge. The Buyer remains responsible for satisfying itself that the product is suitable for its intended process or purpose. Since we cannot control the application, use, or processing of the product, we accept no responsibility on that basis. Refer to the current controlled data sheet, or contact us, before production use.