



Product Data

Q-16 Series Bedding/ Glazing Compound

Issue Date: 11/03/2010

Purpose

This material was created for use as a glass bedding compound and perimeter seal for styrene base door lites. It can correctly be called a sealant gasket because it combines the rubber characteristics of cured rubber with the adhesive characteristics of mastic sealants.

Composition

Elastomers of polyisobutylene and ethylene propylene copolymers are used for their outstanding water and U.V. resistance. These polymers are lightly cross linked to give measured rebound and recovery to the sealant and to insure a tight seal. Hydrogenated aliphatic hydrocarbons are used for adhesion and long-term stability.

Detail

This material represents a new concept in door lite sealing and is ideally suited for automation. Some of its outstanding characteristics are:

WEATHERABILITY: It retains its structural integrity throughout a broad range of wind and weather conditions, while both in use and during storage and handling.

GEOMETRY: The quick setting and anti-slump characteristics permit the proper amount of material to be applied to all planes of the structure.

PAINTABILITY: It can be stained or painted easily with high quality coatings. Clean up, if required, can be accomplished with mineral spirits and a clean cloth.

TRIMMABILITY: It can be easily trimmed with a sharp plastic knife or razor.

COMPRESSIBILITY: Its nature is such that the amount of torque applied at the bosses is sufficient to squeeze out scalloping between the bosses. There is enough compression resistance, however, to hold a good seal between the frame and the door.

STRUTURAL INTEGRITY: Although there is no AAMA specification for styrene door lites, Q-16 would easily pass AAMA 902 for aluminum windows.

REPOSITIONABILITY: It is formulated to permit repositioning in a door should be the frame be improperly installed. The frame can be completely removed and reset or moved by one eighth inch without adversely affecting the seal. For best results this should be done within thirty minutes of assembly.

Traditionally used bedding/glazing compounds have disadvantages:

Solvent Based Compounds

- Low solids content results in higher costs due to loss through evaporation (in some cases 30%)
- Contains flammable, contaminating and, in some cases, hazardous ingredients.
- Long cure time results in excess material squeeze out and delay in shipping product.
- -Fast skin time results in poor adhesion to glass when the bedding is exposed for extended periods.

Test Data

Color: Q-16, Amber; Q-16W, White; Q-16W-20, White; Q-16G, Gray

Melt point: ASTM E-28, (Ball & Ring),
275°F + 25°F

Specific Gravity: ASTM D71-72 - .96; Edge Adhesive-
1010(lbs/gal) – 8.0 ± 0.3

Solids Content: ASTM C771-74, 1 hour @ 350° - 99%
min.

Viscosity: Typical: Q-16 – 36,500 cps; Q-16W-20 –
20,000 cps; Q-16G – 26,000 cps

Peel Strength: 12.5 psi min. inches of width. ASTM C-
794/AAMA 800-92 2.4; Vinyl, 12pli typical; Glass, 14days
@ 180°F, 10pli typical; Styrene, 12pli typical;
Polypropylene, 11.5pli typical

Vehicle Bleed: AAMA 800-92, 2.8 1.1 – none; ASTM D -
2203 – none; Edge Adhesives Bleed (Qso-1090) – none

Flash Point: Pensky – Martin, <440°F (204°C)

Crazing to Acrylic & Polycarbonate: none

Excellent Resistance to: water, water vapor, mild acids
and bases, glass cleaners and detergent

Storage Life: 20 years minimum

Paintability: Compatible with most waterborne paints,
lacquers, enamels and alkyds.

Patents: U.S.: 4,677,133 – 4,764,535; Canada: B-
19774CIP/CN

Rebound: Qso-1130, 10.5%

Slump Test: Qso-1110, none



Product Data

- -Metal container difficult to dispose of due to solvent content and residual compound.
- -Solvent dexteros to I.G. unit.
- -Solvent dexteros to most styrene and vinyl surfaces.
- **Waterborne Compounds**
- -Low solids content results in higher costs due to loss through evaporation.
- -Storage, shipping, and handling problems in freezing temperature.
- -Long cure time results in excess material squeeze and delay in shipping product. (if glass beads are added to decrease squeeze out the cure cycle is longer.)
- -Container difficult to dispose of due to residue which can leach surfactant, fungicides and bactericides into effluent.
- -Cure times vary with relative humidity.
- **Silicone Based Compounds**
- -Long cure time (up to 30 hours) results in excess squeeze out and delay in shipping product.
- -Difficult or impossible to clean from glass when squeeze out occurs.
- Requires totally clean surface for good bonding and has spotty adhesion on styrene surface.
- Difficult to deglaze and re-glaze.
- Cure time varies with relative humidity.
- **Butyl Glazing Tapes**
- Labor intensive.
- Higher relative cost due to manufacturing processes and more costly packaging.
- Administrative time and cost greater when several sizes of tape inventoried.
- Shipping and storage problems more sever due to the handling of cardboard cartons and rolls as opposed to drums, pails and blocks of material.
- **Foam Tapes**
- Low peel adhesion values.
- Labor intensive.
- Higher relative cost due to manufacturing processes.
- Administrative costs greater when several sizes of tape inventoried.
- Shipping and storage problems more sever due to the handling of cardboard cartons and rolls as opposed to drums, pails and bricks of material.
- Small layer of adhesive backing at the sight line is continuously exposed to U.V.

Q-16 ADVANTAGES

- 100% solids content with no volatile or contaminating ingredients.
- Packaged in fiber drums, pails or blocks with protective silicone release liner. These can be disposed of as a solid waste in flattened condition.
- Requires only thirty seconds to reach the solid state condition of tape.
- Assembly of door lite can be immediate or delayed for up to thirty minutes. The door lite can be shipped immediately.
- Thermal application eliminates adverse affect of temperature vacillations at the point of assembly.
- Consistency is such that material can be relocated to permit easy application of the face glazing. Trimming can be accomplished of the face glazing. Trimming can be accomplished without leaving significant residual film when the material is out with a sharp blade.
- The adhesive characteristics and the method of application require only that there be a commercially clean surface at the point of assembly.
- Non-contaminating to all known commercial insulated glass sealing materials.



Product Data

Applications

This compound is intended for use in a factory environment with a hot melt unit. Contact the manufacturer for recommendations concerning equipment and processing temperatures. The manufacturer can also provide a yield chart showing coverage.

Clean Up/ Precautions

The material can be cleaned from tools and equipment with a light application of mineral spirits.

Prolonged exposure to temperatures exceeding 375F will result in a thermal breakdown of the compound and greatly reduce its physical characteristics and performance.

If flow rates and/or density settings other than those specified are desired, the manufacturer should be contacted so that the proper nozzle tips and pressure settings can be recommended. In such cases, the manufacturer may wish to recommend another of his thermally applied mastic compounds.

Packaging

This material is generally packaged in 55 gallon fiber drums. It can also be supplied in 5 gallon fiber pails and 5 pound silicone lined boxes.

Freight Classification: "NOBIN" (no red label required) Class 55, Item No. 149610

HMIS Rating: Health-o, Flammability-o, Reactivity-o.

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EMERGENCY TELEPHONE NUMBER (24 HOURS): CHEMTREC, 1-800-424-9300

SECTION 1: PRODUCT IDENTIFICATION

Product Name:	Q-16 Series	HMIS Ratings	
Chemical Name:	ROBOFOAM MASTIC	Health Hazard:	0 -- MINIMAL
Chemical Family:	MIXED ELASTOMERS	Flammability Hazard:	1 – MINIMAL
		Reactivity Hazard:	0 – MINIMAL

SECTION 2: HAZARDOUS COMPONENT INFORMATION

Based on data available to Edge Adhesives, none of the components in this product are considered hazardous according to OSHA Hazard Communication Standard 29CFR1910. 1200.

The composition of this mixture is proprietary information. In the event of a medical emergency, information will be provided to a physician or nurse.

SECTION 3: PHYSICAL AND CHEMICAL PROPERTIES

Volatile (Wt.) %:	.001	Solubility in Water:	Insoluble
Specific Gravity (H2O = 1):	0.95 – 1.05	Evaporation Rate:	Not applicable
Odor:	Slight	Appearance:	Solid
Color:	16 Amber; 16G Gray; 16W White 16W-20 White		

SECTION 4: FIRE HAZARDS



Product Data

Flash Point: >400°F (204°C)
Method: Pensky Marten closed cup
Extinguishing Media: Foam, Carbon dioxide, dry chemical
Special Fire-Fighting Procedures: Do not enter confined space without proper protective equipment. Do not use water; materials that floats.
Hazardous Combustion Products: Carbon monoxide, Carbon dioxide

SECTION 5: HEALTH HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

- Acute or Immediate Effect – Routes of Entry and Symptoms
 - Ingestion: Not expected to be an ingestion hazard.
 - Skin: May cause irritation to sensitive skin. Molten material will cause thermal burns.
 - Eye: Particles may cause irritation. Molten material will cause thermal burns.
 - Inhalation: Not likely route of entry.
- Chronic Effects: None known
- Medical Conditions Aggravated Exposure: None known

Carcinogenicity Information: None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTC, OSHA, or ACGIH as a carcinogen.

SECTION 6: FIRST AID PROCEDURES

- Ingestion: Consult a physician if vomiting occurs.
- Skin Contact: If molten material gets on skin, cool rapidly with cold water. Do not attempt to remove material from skin. Obtain medical treatment for thermal burns.
- Eye Contact: Flush with water. Consult a physician if irritation persists.
- Inhalation: Remove to fresh air.

SECTION 7: STABILITY AND REACTIVITY

- Stability: Stable
- Conditions to Avoid: Do not store near strong oxidizers or open flames. Do not heat above 400F when processing.
- Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide
- Polymerization: Will not occur

SECTION 8: ACCIDENTAL RELEASE MEASURES

Allow molten material to solidify, then peel up and put into containers for disposal.
Dispose of according to local, state, and federal regulations for non-hazardous solid waste.

SECTION 9: EXPOSURE CONTROLS/PERSONAL PROTECTION

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure at all times.

- Respiratory Protection: Not required under normal conditions
- Ventilation: Local exhaust recommended
- Protective Gloves: Required when working with molten material
- Eye Protection: Required when working with molten material
- Other Protective Equipment: None
- Hygienic Practices: Wash hands before eating, smoking, or using washroom.
Adhere to the sanitation requirements of 29CFR1910.141 and 29CFR1910.142

SECTION 10: TRANSPORTATION INFORMATION

- D.O.T. Shipping Information: Not regulated
- I.M.O. Shipping Information: Not regulated



Product Data

SECTION 11: REGULATORY INFORMATION

Section 313 Supplier Notification:

This product contains no known toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and of 40CFR372.

STATE REGULATIONS (U.S.):

STATE RIGHT-TO-KNOW LAWS

No substances on the state hazardous substances list for the states indicated below are used in the manufacture of products on this Material Safety Data Sheet, with the exceptions indicated. While we do not specifically analyze these products, or the raw materials used in their manufacture, for substances on various state hazardous substances lists, to the best of our knowledge the products on this Material Safety Data Sheet contain no such substances except for those specifically listed below:

1. Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for special hazardous substances): None known
2. WARNING: Substances known to the State of California to cause cancer, birth defects, or other reproductive harm: None known
3. Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.01% for substances identified as carcinogens, mutagens, or teratogens): None known

CANADIAN WHMIS: To the best of our knowledge, this material is classified as a NONCONTROLLED PRODUCT.

SECTION 12: ADDITIONAL COMMENTS

The data in this Material Safety Data Sheet relates only to the specific material designated and does not relate to use in combination with any other material or in any process.

This information is taken from sources or based upon data believed to be reliable; however, Edge Adhesives Disclaims any warranty, express or implied, as to the absolute correctness or sufficiency of any of the foregoing or that additional or other measures may be required under particular conditions.

SECTION 13: OTHER INFORMATION

Revisions made: Added Q16W-20 to MSDS.