

RTF8510

Description

RTF8510 silicone rubber foam is a liquid compound which cures at room temperature to a medium density foam with the addition of a curing agent. The product is a two-component product, supplied in kit form. Thorough mixing of the base compound with the curing agent initiates the chemical reaction which results in the formation of a foam within 20 minutes at room temperature.

Key Features and Typical Benefits

- 1:1 mix ratio by weight or volume
- Low viscosity - easily pourable
- Medium density flexible foam
- Room temperature cure
- Formulated to resist cracking and splitting after cure

Typical Physical Properties

Uncured Properties

Property	RTF8510A Base	RTF8510B Curing Agent
Color	Black	Beige
Viscosity (cps)	9,000	6,000
Specific Gravity	1.2	1.2

Typical physical properties are average data and should not be used as or to develop product specifications.

Typical Cured Properties (Mixed 1:1 by weight at 25 °C)

Mixed Properties	Value
Appearance	Black, uniform color
Initial viscosity (cps)	7,500
Work Time (minutes)	3
Expansion ratio	4:1
Time for full rise (minutes)	20
Cured Properties	
Physical	
Appearance	Black, flexible foam

Typical physical properties are average data and should not be used as or to develop product specifications.

Typical Cured Properties (Mixed 1:1 by weight at 25 °C), continued

Cured Properties	Value
Density (lb/ft ³)	16
Thermal ⁽¹⁾	
Thermal Conductivity (BTU in/hr, ft ² , °F)	0.44
Operating Temperature Range	-60 °C-204 °C (-75° -400 °F)
Flammability⁽²⁾	
Radiant Panel (ASTM E-162) Flame Spread	18
Smoke Density (ASTM E-662/NFPA258) Flaming (4 minutes)	41
Smoldering (4 minutes)	70
Oxygen Index	30

Typical physical properties are average data and should not be used as or to develop product specifications.

⁽¹⁾ Information provided for customer convenience. These properties not tested on a routine basis.

Potential Applications

- Pour-in-place thermal insulation
- Mechanical cushioning
- Firestop systems
- Flexible foam rubber molded parts
- Sprayed insulation systems
- Sound dampening

Processing Recommendations

- The individual RTF8510A and RTF8510B components should be thoroughly stirred prior to mixing.
- Do not cross-contaminate the containers.
- Mix the A and B components together at a ratio of 1:1 by weight in a large container.
- A uniform black color is seen when A and B components are completely mixed.
- At 25 °C, RTF8510 will have a gel time of approximately 2.5 minutes.
- Higher temperatures in the working area will decrease the work time.
- Chilling the RTF8510A and B components will increase the work time.
- Temperature of 0 °C or below should be avoided.
- When hand mixing, use a clean, flat-sided spatula or paint stirrer. Material clinging to sides and bottom of the container should be stirred completely into the main contents.
- If a power mixer is used, only two fifteen-second cycles are usually required for thorough mixing.
- Avoid high mixer speeds which could cause heating of the material.
- Sides and bottom of container should be scraped with a spatula between cycles.
- Automatic dispensing machines designed to meter, mix and dispense silicone foam materials are available. For additional information, contact Momentive Performance Materials

WARNING: This product expands by the evolution of hydrogen gas. Mixing and handling of catalyzed material should be done in well ventilated areas away from sparks, flames, or other sources of ignition in and above the work area.

Surface Compatibility

Cure inhibition of RTF8510 silicone foam may occur in contact with many material including:

- Vinyl plastics
- Synthetic and natural rubbers
- Sulfur-containing materials, such as polysulfides
- Tin soaps
- Certain epoxies containing strong amine catalysts
- Some clays
- Some woods
- Certain leathers
- Certain tape adhesives
- Some heat cured rubbers
- Chlorinated substances, such as neoprene
- Latex gloves. Each application should be tested for compatibility.

Substrate Preparation

If adhesion is required, surface must be clean and dry. Clean with non-oily solvent such as:

- Methyl ethyl ketone (MEK)
- Toluene
- Xylene

Other cleaners may be used if:

- They remove the contaminant
- They are not oily
- They do not leave a residue
- After surface is cleaned and dried, RTF8510 foam can be mixed and applied to the surface.

Adhesion

RTF8510 will bond to many materials including:

- Aluminum
- Steel
- Glass
- Fiberglass

Adhesion is improved by the following methods:

- Time: 24 hours at 25 °C (unprimed)
- Temperature: 1 hour at 50 °C (unprimed)
- Priming: SS4155 primer

Cured RTF8510 can be bonded to other surfaces using:

- One component RTV silicone
- Additional RTF8510

Specifications**(2) Flammability**

The above test, claims, representations and descriptions regarding the flammability of the product described are based on a standard small scale laboratory test and as such are not reliable for determining, evaluating, predicting or describing the flammability or burning characteristics of this product under actual fire conditions, whether this product is used alone or in combination with other products.

Availability

RTF8510 silicone rubber foam may be ordered from Momentive Performance Materials, Waterford, New York 12188, or from the Momentive Performance Materials sales office nearest you.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage**CAUTION:**

RTF8510B curing agent can generate flammable hydrogen gas on contact with acidic, basic or oxidizing materials, and such contact must be avoided. Keep curing agent container tightly closed.

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

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