

BAYTEC[®] SIL 70

Characterization

Baytec Sil 70 coating is a single component silicone material.

Properties / Applications

Baytec Sil 70 coating is specifically designed for use in roofing applications as the weather resistant coating on spray applied foam roofing systems. Baytec Sil 70 coating can be specified for use with roofing granules in the top coat for added durability and weather resistance.

Baytec Sil 70 coatings are identical products except for color. When applying in two or more coats it is advantageous to use alternating colors to assure uniformity of coverage. Baytec Sil 70 coating is a one component material requiring no mixing and can be applied by spray, roller, or brush. A fast cure rate and a 15 to 30 minute skinover time provides adequate time for granule application. A 1-2 hour tack free time normally produces adequate cure at the end of the application day.

The low spraying viscosity of Baytec Sil 70 coating promotes easy spraying with airless spray systems using a minimum 25:1 ratio air motor driven pump. Cracks and grooves fill easily. High static viscosity helps material stay where it is sprayed. The coating typically will not flow off high spots or vertical areas on parapets.

As with any product, use of Baytec Sil 70 coating in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

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General Application Instructions

Baytec Sil 70 coating may be applied by medium nap rollers, brushes and by conventional or airless spray equipment. Airless spray application is most efficient whereas rolling or brushing may be used for touchup, flashing and edge terminations or to fill voids, pinholes, holidays or cracks. Contact your Bayer MaterialScience technical service personnel for specific recommendations.

Apply Baytec Sil 70 coating only to clean, dry, sound surfaces that are free of loose particles or other foreign matter. A primer may be required subject to the type and/or condition of the substrate. Consult Bayer MaterialScience technical service personnel for specific primer recommendations and substrate preparation procedures. Apply only to roofs that have adequate positive drainage (i.e. a minimum slope of 1/8 inch per foot).

It is recommended that Baytec Sil 70 coating be sprayed in multiple coats applied in multi-directional (north-south, east-west) passes to insure uniform film build and to avoid pinholing. Backrolling sprayed material may be necessary to fill pinholes in substrate. Final cured dry film thickness must be free of voids, pinholes, holidays, cracks or blisters. Coating application should be suspended immediately and Bayer MaterialScience technical service personnel contacted if the results obtained are less than desirable.

Care should be taken to avoid overspray. All overspray should be cleaned up immediately and before it has cured by wiping alternately with mineral spirits and dry rags. Cured material may have to be scraped off surfaces with a razor blade or scrubbed off with steel wool and mineral spirits. To control overspray, avoid spraying in high winds (above 15 mph) and/or mask all surfaces which are not to be coated.

Cleanup of equipment containing uncured material may be accomplished by flushing with mineral spirits. Baytec Sil 70 coating should not be left in pumping equipment and hoses for prolonged periods of time.



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Dry Physical Properties*

Properties	Test Method	Value
Tensile Strength	ASTM D 412	486 psi
Elongation	ASTM D 412	267 %
Peel (wet) Strength	WPSTM C 628	> 2.0 Ins/inch
Hardness (Shore A)	ASTM C 2240	50
Solids by Weight		80%
Solids by Volume		69%
Weight per Gallon	WPSTM P 14	10.25 lbs
Viscosity	WPSTM C 56	9,000 cps
Color		White, Gray, Tan

* These items are provided as general information only. They are approximate values and are not part of the product specifications.

Wet Physical Characteristics

Property	Value
Shelf Life	6 months when properly stored
Clean Up	Mineral spirits
Thinner	Not Recommended

Product Reactivity & Application

Property	Value
Skinover	15 - 30 minutes
Tack Free time	1 - 2 hours
Recoat	12 - 24 hours

"Cool Roof Rating Council" Rating

	Initial	3 Yr
Solar Reflectance - White	0.84	0.66
Thermal Emittance - White	0.85	0.9

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Limitations and Precautions

Protect from freezing during shipment and storage. Do not store material at temperatures below 50°F. Do not apply Baytec Sil 70 coating when ambient air and substrate temperatures fall below 50°F (10°C), or when there is a possibility of temperature dropping below 32°F within a 24-hour period after application. Lower temperatures will lengthen the skinover, tack free, and ultimate cure time. Higher temperatures will shorten the cure time and working time for proper application of granules before the material has skinned. Sudden temperature declines may also result in dew formation on surfaces which can prevent adhesion development. For best results, relative humidity should be above 20%. Lower humidity will slow the cure rate significantly.

Baytec Sil 70 coating may be applied directly over each other and over most other silicone roof coatings. When recoating older silicone coated roofs be sure the surface is clean, dry, structurally sound and that all holes and underlying damage has been properly repaired. The existing coating may have to be power washed with an appropriate surfactant solution then power rinsed to remove dirt. It is recommended that a test patch be cleaned and coated with Baytec Sil 70 coating to verify the effectiveness of the cleaning process and the adhesion to the surface prior to beginning the job.

Baytec Sil 70 coating may be sprayed as received. Additional dilution with solvent is neither necessary nor desirable. On horizontal surfaces these materials may be sprayed easily in thicknesses up to 15 or 20 mils or more without flowing or alligatoring.

Health and Safety Information

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling this product. Before working with this product, you must read and become familiar with the available information on its risks, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., material safety data sheets and product labels. For further information contact your Bayer MaterialScience representative or the Product Safety and Regulatory Affairs Department in Pittsburgh, PA.



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The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether our products, technical assistance and information are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent.

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