

PS #220

Solvent-based 100% Silicone 69% Solids Elastomeric Roof Coating (FR)

Description

PS #220 is a ready to use, single component, solvent borne, moisture cure fluid applied silicone coating. When cured, PS #220 forms a breathable membrane possessing superior weathering and water resistance characteristics.

Uses

Suitable for use on sprayed polyurethane foam, most metal roof systems, concrete, Thermoplastic and Thermoset single-ply membranes (primer may be required). Suitable for use over various conventional BUR and polymer modified roof membranes with smooth and mineral surfacing when primed with KM Epoxy Primer or KM 1P one-part acrylic primer/bleed blocker. Contact KM Coatings Technical Services for clarification of unusual surfaces or project conditions.

Standard Colors

PS #220 is available in white, light grey, dark grey, tan, and Santa Fe tan.

PS #220, white, is highly reflective and exceeds the minimum standards for California Title 24 reflectivity and emissivity, and is ENERGY STAR® rated.

Packaging

5GA pail, 50GA drum

Typical Physical Properties (ASTM D6694)

1. **Tensile Strength** 486 PSI (± 20) @ 73°F, 700 PSI (± 20) @ 0°F, **ASTM D412**
2. **Elongation (Break)** 267% (± 20) @ 73°F, 282% (± 20) @ 0°F, **ASTM D412**
3. **Tear Resistance (Die C)** 33.7 lb f/in, **ASTM D624**
4. **Permeability** 5.9, **ASTM E96, Procedure B**
5. **Tensile, set @ 100% Elongation** Nil.
6. **Temperature Stability Range** -80°F to 350°F, (-37°C to 177°C)
7. **Water Absorption** 0.1 weight % after 2 weeks @ 75°F (24°C), **ASTM D471**
8. **Weathering / UV Resistance** No degradation after 8,760 hours, **ASTM G53**
9. **Specific Gravity** 1.23 @ 77°F (25°C)
10. **Tack Free Time** 1 hour, temperature and humidity dependent
11. **Viscosity - spray grade/bulk (cP)** 5,000–8,000 **Brookfield® 4d/5 RPM/77°F**
12. **Viscosity - spray grade/pail (cP)** 8,000–12,000 **Brookfield® 4d/5 RPM/77°F**
13. **Durometer Hardness** 50 (± 5), **Shore A**
14. **Solids Content by Weight** 80% (± 2), **ASTM D1644**
15. **Solids Content by Volume** 69% (± 2), **ASTM D2697**
16. **Maximum Continuous Service Temperature** 185°F (85°C),
17. **Flash Point** >105°F, **ASTM D93**
18. **Cure Time** Min. 2 hours @ 100°F and 90% humidity, Max. 8 hours @ 40°F and 90% humidity.
19. **Drying Time** 1 hour @ 77°F
20. **VOC:** <250 gm/L, **Std. Method**

Refer to Safety Data Sheet (SDS) for specific data and handling of our products.



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Application Instructions

Surface Preparation:

All surfaces to receive coating must be clean, dry and free from any foreign matter such as dirt, oils, grease or other debris that could inhibit the adhesion capabilities of the newly installed products.

Metal surfaces that display rusting or other oxidation, to be prepared with a grinder or wire brush as needed to remove surface contaminants.

Existing roof systems to be visually inspected for conditions that may adversely affect adhesion of performance of newly installed products. Repair any visible deficiencies such as splitting, blistering, and buckling with PS #220, KM Acrylicalk, Brush-It Acrylicalk or KM 1213 and KM Polyester Fabric.

Visually inspect all metal and non-metal flashings, edges, drains, valleys and through-roof penetrations and repair as needed by project conditions.

Do not apply to wet or visibly damp surfaces, or surfaces previously covered with coal tar based products or Kynar® finishes.

Concrete surfaces cured with wax/resin based compounds can inhibit adhesion.

Application:

Stir well prior to application. Caution: due to the combustible nature of this product, do not use an electric mixer.

PS #220 is recommended to be applied with high pressure sprayer for best appearance and coverage. It may also be applied by roller or brush applications.

Apply PS #220 at 16 wet mils (1 gallon per 100 square feet) per coat. Typical application conditions require PS #220 be applied in two coats at 20 wet mils per coat. Consult KM Coatings Technical Services for application rates for specific roof membranes and for job specific application specifications.

Subsequent coats should be applied within 48 hours of prior applications to insure full and uniform adhesion. Coating must be evenly applied and pinhole-free. Before applying a subsequent coat of this product, the previous coat must be completely dry and cured. Apply second coat perpendicular to the first.

Apply only when ambient temperatures are 50°F and rising. Cold weather could result in uneven application and improper curing of product. Do not apply if there is a threat of inclement weather within 4 hours of application. Drying time is dependent on temperature, humidity and film thickness.

Do not thin product.

Prior to using this product on new cap sheets (smooth or granulated), it is recommended to wait 30 days for weathering.

Personal Protection

Personal Protection - Irritation may result from prolonged or repeated contact with skin. Wear chemical resistant gloves, protective goggles and protective clothing, if needed.

Eye Contact - Flush eyes with water while lifting the upper and lower lids and seek immediate medical attention.

Odors and Mists - Avoid breathing silicone odors and spray mists. Use an appropriate MESA/NIOSH approved respirator when exposure can exceed recommended PEL. Additional care must be taken to prevent roof top HVAC equipment from introducing silicone odors into interior areas during application.

Waste Disposal - Empty containers must be disposed of in accordance with local, state and federal regulations.

For Professional Use Only - Keep out of reach of children. This product is not recommended for interior use.

Installers should exercise caution during spray processes to avoid falls caused by stepping into slippery coating. Installers should read and understand all technical and informational literature on this product, including the SDS, prior to use of the product.

Storage and Cleaning

Product shelf life: 12 months from date of manufacture when stored between 35°F and 75°F.

Do not store at temperatures greater than 120°F.

Store 24 hours at room temperature prior to application.

Observe normal safeguards for storing and handling of this product prior to and during application.

Keep containers covered when not in use.

Cleanup of spray equipment containing uncured material may be accomplished by flushing with VM&P Naphtha or mineral spirits. PS #220 cures by reacting with moisture and should not be left in spray guns, pump equipment and hoses for prolonged periods unless equipment contains moisture lock hoses, fittings and seals. Equipment without these components will transmit sufficient moisture vapor to gradually form cured material on hose walls and at unsealed connections potentially causing an increase in operating pressure and material flow restriction.

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Application Equipment

This product may be sprayed, brushed, or rolled. Due to the high viscosity of the material, a high-pressure airless paint pump capable of producing a minimum of 3500 PSI at the spray gun head should be used. The pump should have a minimum of 3 gallons per minute output and be fed by a 5:1 transfer pump to prevent cavitation. Always use components rated for pump pressure. Hoses should be BUNA-N jacketed for prevention of moisture contamination. Hoses should have a minimum I.D. of 3/4" and an adequate working pressure. The spray gun should be high pressure (5000 PSI) with reverse-a-clean spray tip, having a minimum orifice of .030 and a 50° fan tip.

DO NOT USE hose that has been used for Acrylics or other waterborne coatings because the liner absorbs moisture and initiates the silicone cure process.

Codes and Standards

Meets or exceeds the requirements of ASTM D6694 Standard Specification Liquid-Applied Silicone Coating

Meets or exceeds the requirements of ASTM C1305 Standard Test Method for Crack Bridging Ability of Liquid Applied Waterproofing Membrane

UL Classified (Over insulated steel decking, spray foam and single ply roofing systems) Refer to UL directory for specific information.

CRRC Listed (White only)

Can be used to comply with 2016 Title 24 Part 6 Cool Roof requirements (White only)

Energy Star® Compliant (White only)

Factory Mutual Approved

Texas Department of Insurance

Miami Dade County Approved

NSF Protocol P151 - Health Effects from Rainwater Catchment System Components. See listing at www.nsf.org for application and cure instructions for rainwater catchment use. (White only.)

Florida Building Code Approved



Ponding Water

The chemistry of silicone, which KM Silicone roof coatings are manufactured with, is not adversely affected by ponding water or prolonged rain exposure. Please be advised that good roofing practices, Building Codes and The National Roofing Contractors Association (NRCA) consider ponding water on any roof undesirable and recommend that all roof systems be designed and built to ensure positive drainage (See the NRCA Roofing and Waterproofing Manual and any applicable Code Ordinances).

Warranty

KM Coatings manufactures a variety of fluid-applied materials to suit various project needs and offers extended manufacturer's warranties to its Approved Applicator network. Warranty type, Terms and Conditions, as well as coverages, will depend on product(s) utilized and project circumstances under which materials are used. Unless otherwise provided for as part of an extended manufacturer's warranty, Product Liability is strictly limited to manufacturing defects for a period of one year.

KM Coatings

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Refer to SDS for specific data and handling of our products.

All data furnished refers to standard production using manufacturing testing tolerances. The product user, and not KM Coatings, is responsible for determining the suitability and compatibility of our products for the user's intended use.



	Initial	Weathered	
	Solar Reflectance	0.85	0.66
	Thermal Emittance	0.85	0.90
	Rated Product ID Number	0754-0007	
Licensed Seller ID Number	0754		
Classification	Production Line		
<p>Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effect of solar reflectance and thermal emittance on building performance may vary.</p> <p>Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.</p>			

Solar Reflectance Index (SRI) – Initial 106 : Weathered 100

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