



Tech Data Sheet

TOPSHOT CORE

TS-503 STANDARD ACRYLIC TOPCOAT

Basic Uses & Description:

TS-503 TopShot CORE is a premium-grade 100% acrylic roof coating offering excellent dirt pickup resistance, UV stability, and long-term flexibility. Ideal for standard commercial applications, this bright-white coating provides strong elongation and tensile strength for dependable 10-year protection.

Storage:

This product has a recommended shelf life of 12 months from date of manufacture when stored in unopened containers and between 40°F and 100°F to prevent the product from freezing. Refer to product packaging.

Clean Up:

Clean equipment and overspray with water. Clean hands with waterless hand cleaner. Application tools and equipment can be cleaned with lukewarm water and soap, followed by a rinse of isopropanol, acetone, or Simple Green®. Recirculate the rinse through lines and gun until residual coating is removed. **DO NOT USE MINERAL SPIRITS, XYLENE, TOLUENE, OR VMP & NAPHTHA SOLVENTS.**

Maintenance:

The life of the roof may be extended by regularly scheduled maintenance. A roof should typically be inspected at least twice a year. The roof immediately needs to be inspected following severe weather and extraordinary maintenance on roof-mounted equipment.

Weather Restrictions & Cure Time:

It is recommended not to apply in temperatures less than 40 degrees Fahrenheit; do not apply if rain is expected within four hours of application. If applied in lower temperatures, the cure time may be affected.

The coating can dry in 6-8 hours depending on variables such as temperature and humidity. A subsequent coat should be applied as soon as the previous one can safely be walked on.

TEST PROPERTY	TEST VALUE
Solids by Volume	53%
Solids by Weight	60%
Weight per Gallon	11.8 lbs
Tensile Strength	300 psi
Tear Resistance	82 lbs/in
Elongation	250%, Nominal
Hardness (Shore A)	70
Cure Time	24-48 hrs (77°F & 50% humidity)
VOC	50 g/L
Packaging	Tote, Drum, 5 & 1 gallon
Application Temp	50°F - 100°F
Service Temp (Cured Film)	15°F - 180°F

Packaging Sizes:

TS-503 TopShot CORE is available in Tote, Drum, 5 gallon and 1 gallon containers.

Limited Warranty Information:

Kool Coats offers a 10-20 year Material Warranty. A 10-20 Year Labor and Material Warranty is available for a fee. For warranty details contact your Kool Coats representative.

WARRANTY DISCLAIMER:

This product is warranted solely to the original purchaser. This warranty is non-transferable and shall not apply to any subsequent resale or transfer of the product. To obtain warranty service, the original purchaser must provide valid proof of purchase. Kool Coats makes no warranties, expressed or implied, beyond those stated herein and reserves the right to modify these terms at any time without notice.



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Substrate Considerations:

General: The applicator is responsible for determining whether an existing roofing system is a suitable candidate for a roof coating system.

Slope/Drainage: The roof must have positive drainage and should not pond water for more than 48 hours after precipitation stops.

Moisture Survey: Kool Coats recommends performing a moisture survey before application to ensure the existing roofing assembly is dry and free of trapped moisture. Approved methods include infrared, electronic capacitance, nuclear scans, or cutting core samples.

Adhesion Tests: Kool Coats advises conducting adhesion/peel tests before application to ensure an adequate bond. If necessary, determine if a primer or other specific surface preparation is required.

Repair: Repair or replace any unsound areas in the roof, including blisters, ridges, delamination, deterioration, moisture saturation, and sharp projections, before coating. Substrates and penetrations may require sandblasting or grinding to achieve a suitable surface.

Metal: Replace all missing, stripped, and deteriorated fasteners with appropriate fasteners using EPDM-backed washers. Fasten all metal roofing and flashing overlapped seams as required to prevent movement or opening of seams under foot traffic.

Single Ply: Remove and replace wet insulation and/or defective materials. Cut the membrane on three sides, fold back, and replace with like materials.

Modified Bitumen/Smooth BUR: Remove and replace wet insulation and/or defective materials with like materials, and tie into existing roofing in accordance with NRCA guidelines.

Environmental Conditions: Environmental conditions such as temperature, dew point, humidity, precipitation, sun, cloud cover, wind, and shade can affect the application of TopShot Coatings and Primers. Monitor and confirm that all environmental conditions are satisfactory before beginning work. Ambient and surface temperatures must be between 50 – 95°F and a minimum of 5° above the dew point. Do NOT apply if rain or freezing temperatures are predicted within 24 hours.

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REVISED DATE: JAN. 2025

Substrate Preparation:

General: All surfaces must be free from irregularities, loose or unsound material, and foreign substances such as dirt, ice, snow, water, grease, oil, release agents, paints, coatings, lacquers, excess granules, or any other condition that could hinder the adhesion of the primer and membrane.

Cleaning: Use ProWash to remove dirt, biological growth, and other residues. Power wash all surfaces with a minimum of 2000 psi using a wide-fan tip. Completely remove the cleaning solution, as any residue can result in poor coating adhesion. Ensure the water runs clear with no soap bubbles. Allow the surface to dry completely before applying any primers or coatings.

Primer: Primers are highly recommended to prevent asphalt bleed-through, inhibit rust, or promote adhesion of TopShot Coatings. Skipping the primer may result in aesthetic issues or adhesion problems. After mixing, apply the primer according to the specified coverage rate and recommended mil thickness using a roller or airless sprayer. Allow the surface to dry for a minimum of 4 hours. Inspect the surface and laps for insufficient coating thickness and apply additional coating if needed at the specified rates.

SUBSTRATE	PRIMER	APPLICATION RATE
Asphalt, BUR & Modified Bitumen	301 Multipurpose Primer	1.0 @ 16 wet mils
TPO	301 Multipurpose Primer	0.5 @ 8 wet mils
Rusted Metal	301 Multipurpose Primer	1.0 @ 16 wet mils

IMPORTANT: Primers must be top coated within 24 hours of application for proper coating results.

Quality Assurance Guides:

- Adequate surface preparation is the key to proper adhesion with the substrate.
- Check weather conditions prior to start of work. TopShot coatings are UV radiant curing material and should be applied on warm sunny days for best results.
- Use precautions and protect all surfaces that are not to be coated. Mask off sensitive areas such as windows or equipment, and provide protective screening as needed to prevent overspray.
- Route all HVAC condensate lines to roof edges or into roof drains to prevent moisture contamination and damage.
- Do not thin this product. Thinning will affect performance and may coagulate the coating.
- At steep slopes 2:12 or greater application may require multiple thin coats to achieve the desired mil thickness.



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Flashing Details:

Flashing/Penetrations: All penetrations, laps, flashing, joints, transitions, and fasteners must be sealed with approved TopShot Mastic prior to coating.

Slope/Drainage: Roof seams are a common source of leaks. Ensuring that all seams are tight and free from moisture prior to the application of approved TopShot mastic.

Coating Guides:

Mixing: Coating separation may occur during storage. Mix freely.

Application: TopShot coatings are sunlight curing materials and should be applied on warm, sunny days for optimal results. Apply the coatings using a brush, roller, or airless sprayer. Evenly apply the first coat at a rate of 1.5 gallons per 100 square feet (24 wet mils). Allow the surface to dry for at least 4 hours before applying the next coat. Do not exceed 2.25 gallons per 100 square feet in a single application.

Recoat: Apply the second coat perpendicular to the first at the same rate of 1.5 gallons per 100 square feet (24 wet mils). For spray application or granulated substrates, back roll the second coating to prevent shading and voids. Allow the surface to dry for 16 to 24 hours. Inspect all areas and seams for insufficient coating thickness. If needed, apply additional coating at the specified rates.

Curing: All working and curing times are approximate and may vary based on humidity, ambient/surface temperatures, and application thickness.

Clean Up: Before the coating dries, clean hands, tools, and any spills with warm, soapy water. For cured material, use mineral spirits or citrus-based cleaners.

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Spray Application:

Equipment: Airless sprayers can significantly enhance productivity. The spray equipment should meet the following criteria:

CRITERIA	QUANTITY
Pump Fluid to Air Ratio	30:1
Minimum Pump Pressure	3000 PSI
Output	2.5 gal/min
Spray Run	3000 PSI
Minimum Tip Orifice	0.027 - 0.039 inch
Tip Fan Angle	40° - 50°
Hose: Inside Diameter / Length	3/8" - 75 ft 1/2" - 200 ft 3/4" - 200 ft

Refer to the equipment manufacturer for appropriate use and maintenance of all spray equipment and accessories.

Start-Up: Adjust the tip size according to current conditions. Hose length, ambient temperature, and material temperature can affect the spray pattern. To reduce applicator fatigue, install a wand extension with a 45° elbow at the tip. If the spray pattern is pulsating, reduce the size of the tip orifice to decrease the delivery volume of the material and increase pressure.

Precautions: For spray applications, TopShot Coatings should be pre-conditioned and maintained at or above 65°F. In windy conditions, use windbreaks, additional masking, and clear adjacent areas to protect from overspray. Spray application is not recommended when wind speeds exceed 15 mph.

Technique: Hold the spray tip roughly 12-24 inches above the substrate. Use a half-lap technique, overlapping each spray pass by 50% to ensure uniform coverage. On vertical surfaces, take care not to apply material too thickly, as this can cause runs or sags. Always verify coating thickness during application with a wet mil gauge.

Clean Up: Clean equipment while the coating is still wet using a general-purpose cleaner. Thoroughly rinse all hoses and spray equipment at the end of each day.