

Product Description

Si790 is a single-component, high-solids, neutral-cure silicone mastic engineered for durable roof detailing, sealing, and repair. Its thick, non-sag consistency helps bridge surface irregularities and forms a flexible, weather-resistant seal with minimal shrinkage. Si790 is a low-odor, solvent-free material that cures without releasing acidic byproducts, making it suitable for many sensitive metals and coated surfaces.

Recommended Uses

Si790 is designed for detailing penetrations, curbs, drains, flashings, and terminations; sealing seams, laps, and fasteners on metal roofing and wall panels; and repairing splits, blisters, fishmouths, and other localized damage in compatible roof membranes. Si790 may also be used as a preparation and detailing mastic beneath compatible SESCO silicone roof coating systems. TPO and other difficult-to-bond surfaces require an approved primer and a successful adhesion test before application.

Product Data

Physical Property	Typical Value	Test Method
Solids by Weight	99%	ASTM D 1644
Solids by Volume	98%	ASTM D 2697
Weight Per Gallon	11.3 lbs	ASTM D 1475
Slump	No sag	ASTM D D2202
Tensile Strength	215 psi	ASTM D 2370
Elongation	525%	ASTM D 2370
Tear Strength	31 lbf/in	ASTM D 624
Hardness	27 Shore A	ASTM D 2240
Movement Capability	+/- 35%	ASTM C 719
Tack Free Time	45 minutes	ASTM C 679
VOC	< 20 g/L	EPA Method 24

**Typical physical properties +/- 5%.*

Packaging/Shipping

CONTAINER SIZE	SHIPPING CLASS
2 Gallon pail	Class 70

Shelf Life

Si790 has a shelf life of up to 24 months from the date of manufacture when stored in its original, unopened container within the recommended temperature range.

Color Options White and black.

Surface Preparation

The substrate must be sound and free of dust, dirt, oil, grease, biological growth, loose granules, peeling coatings, and other contaminants that may interfere with adhesion. Remove deteriorated material and repair unstable areas before applying Si790.

Power washing, mechanical preparation, or priming may be required depending on the substrate. Remove all standing water before application. Slightly damp surfaces may be acceptable when specifically approved, but Si790 must not be applied over saturated substrates or standing water.

Application

Do not thin Si790. Apply it with a clean trowel or a 4-inch double-wide chip brush with synthetic filaments.

Apply Si790 in a continuous, pinhole-free layer at a minimum thickness of 3/16 inch. Extend the material beyond the repair onto sound, properly prepared substrate and taper the edges to promote drainage and provide a smooth transition.

Tool the material before a surface skin develops. Allow Si790 to cure sufficiently before applying a compatible SESCO silicone roof coating. Refer to the applicable SESCO Guide Specification for project-specific detailing and recoating requirements.

Equipment Recommendations

Trowel: Use a clean, smooth-edged application trowel suitable for spreading high-viscosity mastics.

Brush: Use a 4-inch double-wide chip brush with synthetic filaments.

Keep tools clean and dry. Do not introduce water, reclaimed solvent, or incompatible coating residue into the product.

Coverage Rate

Coverage will vary with application thickness, repair geometry, substrate texture, and installation technique.

At a uniform thickness of 3/16 inch, theoretical coverage is approximately 8.6 square feet per gallon. At a 4-inch application width and 3/16-inch thickness, theoretical coverage is approximately 25.7 linear feet per gallon. These calculations exclude surface irregularities, material loss, and waste.

Contact SESCO for project-specific coverage guidance.

Safe Practices

Si790 is intended for professional installation only. Before use, read and understand the current Safety Data Sheet, product label, and applicable installation instructions. Use the personal protective equipment, ventilation, handling practices, and safety precautions identified in those documents.

Additional product information is available at sescoroof.com or by contacting SESCO directly.

Clean Up

Remove excess uncured material promptly. Clean tools and equipment with mineral spirits immediately after use. Cured silicone must generally be removed mechanically.

Follow the current SDS and all applicable requirements when handling, storing, and disposing of solvents and contaminated materials.

Environmental Conditions

Do not apply Si790 when the ambient or substrate temperature is below 40°F. Do not apply over standing water, saturated substrates, frost, or ice.

Application is not recommended when rain or dew is expected before the material reaches a tack-free condition. Temperature and humidity affect curing; cooler or drier conditions may extend the tack-free and cure times.

Limitations

Do not apply Si790 over standing water, saturated substrates, frost, ice, or contaminated surfaces. Si790 is not recommended for cryogenic tanks, cold-storage roofing assemblies without an appropriate vapor barrier, or direct application over modified bitumen or asphalt without an approved primer.

TPO and other difficult-to-bond substrates require an approved primer and field adhesion testing. Substrate composition and surface treatments vary; verify compatibility before installation.

Si790 is a detailing and repair mastic and is not intended to replace a complete roof membrane or field-applied roof coating system.