

SELECTION DATA

GENERIC TYPE: Two-component novolac epoxy polyamide coating and lining.

GENERAL PROPERTIES: Semstone 145-S is a solvent-free, self-priming epoxy coating with excellent chemical resistance, resistance to thermal shock, plus wear and impact. Semstone 145-S has superior bonding qualities, low permeability, high cohesive strength and flexibility.

RECOMMENDED USES: Semstone 145-S is designed for severe chemical exposure over steel. The excellent bonding and acid resistance qualities, including 98% sulphuric acid, make it ideal for splash and spill protection. Semstone 145-S is also resistant to many organic chemicals and solvents. Typically spray applied, its high build characteristics allow a thickness of up to 300µm to be achieved on a vertical surface in a single spray application.

CHEMICAL RESISTANCE GUIDE:

| <u>Exposure</u> | <u>Immersion</u> | <u>Splash & Spillage</u> |
|-----------------|------------------|------------------------------|
| * Acids | Excellent | Excellent |
| * Alkalies | Excellent | Excellent |
| * Solvents | Excellent | Excellent |
| Salt | Excellent | Excellent |
| Water | Excellent | Excellent |

* Refer to StonCor Africa Technical Service for specific recommendations.

TEMPERATURE RESISTANCE (non-immersion):

| | |
|-----------------|------|
| Continuous: | 50°C |
| Non-continuous: | 70°C |

Immersion temperature resistance depends upon exposure.

FLEXIBILITY: Good

WEATHERING: Very good (chalks)

ABRASION RESISTANCE: Excellent

IMPACT RESISTANCE: Good

SUBSTRATES: Properly prepared steel.

COMPATIBILITY WITH OTHER COATINGS: Semstone 145-S is designed as a self priming system over properly prepared substrates. Consult StonCor Africa Technical Service for specific recommendations.

SPECIFICATION DATA

THEORETICAL SOLIDS CONTENT OF MIXED MATERIAL:

| | <u>By Volume</u> |
|----------------|------------------|
| Semstone 145-S | 98% ± 2% |

RECOMMENDED DRY FILM THICKNESS PER COAT:
200 to 300 microns *

* Thickness will vary depending upon exposure.

THEORETICAL COVERAGE:*

3,3 m²/l at 300 microns

***NOTE:** Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.

SHELF LIFE: For applications on vertical surfaces, use within 2 months of date of manufacture. Semstone 145-S otherwise has a 12-month minimum shelf life when stored at 25°C.

COLOURS: Red oxide & Grey only.

ORDERING INFORMATION

Prices may be obtained from StonCor Africa Sales Representative or Main Office.

APPROXIMATE SHIPPING WEIGHT:

| | |
|----------------|------------|
| | <u>5L.</u> |
| Semstone 145-S | 7 kg |

FLASH POINT(Pensky-Martens Closed Cup):

| | |
|-----------------------|-------|
| Semstone 145-S Part A | 177°C |
| Semstone 145-S Part B | >90°C |

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APPLICATION INSTRUCTIONS

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions and application procedure. It is assumed that the proper product recommendations have been made. These instructions should be followed closely to obtain the maximum service from the materials.

SURFACE PREPARATION: Chemical cleaning of surface may be necessary prior to blast cleaning or acid etching to remove surface contaminants such as oil, grease and dirt. Solvents should not be used for this purpose. If contamination is extensive, steam cleaning may be necessary.

STEEL: For immersion service: Dry abrasive blast clean to a white metal finish in accordance with ISO 8501 Sa3 to obtain a 50 to 100 micron blast profile.

MASKING: Mask surfaces that are not to be coated as this material is difficult to remove once applied.

MIXING: Power mix Part A and Part B separately, then combine and mix for an additional two minutes in the following proportions:

| | <u>5L Kit</u> |
|-----------------------|---------------|
| Semstone 145-S Part A | 4L |
| Semstone 145-S Part B | 1L |

AVOID AERATION DURING MIXING

* Transfer mixed material to a third container for final mixing and application. Regularly flush equipment with solvent to avoid gelation within.

POT LIFE: 45 to 60 Minutes at 25°C and less at higher temperatures. Pot life ends when coating becomes too viscous to use.

APPLICATION TEMPERATURES:

| | <u>Material</u> | <u>Surfaces</u> |
|---------|-----------------|-----------------|
| Normal | 18-29°C | 16-29°C |
| Minimum | 10°C | 10°C |
| Maximum | 32°C | 32°C |

| | <u>Ambient</u> | <u>Humidity</u> |
|---------|----------------|-----------------|
| Normal | 16-29°C | 0-85% |
| Minimum | 10°C | 0% |
| Maximum | 32°C | 90% |

Do not apply when the surface temperature is less than 3°C above the dew point.

Special thinning and application techniques may be required above or below normal conditions.

SPRAY: Single or plural component airless units are recommended. For further information on application equipment, consult your local StonCor Africa representative.

The following equipment have been found suitable, however equivalent equipment may be substituted.

PLURAL COMPONENT AIRLESS SPRAY EQUIPMENT (Graco King Hydra-Cat or equivalent):

Set equipment at a 4:1 volumetric mix ratio. Use a Graco Silver Gun or equivalent, equipped with a reversible self-cleaning tip, orifice size .035 - .041".

SINGLE COMPONENT AIRLESS SPRAY EQUIPMENT (Graco 66:1 pump or equivalent):

Spray hose should be 12mm I.D. and not exceed 15 metres in length. Use a high delivery airless spray gun (direct material feed to spray head) equipped with a reversible, self-cleaning tip, orifice size .019 to .023", and a whip end hose. Remove all in line material filters.

Inlet air pressure should be a minimum of 100 psi (7 bar). Recommended operating pressure is 60 to 100 psi (4 to 7 bar).

BRUSH: Use for patching and/or touch-up areas only. Apply with full strokes. Avoid rebrushing.

ROLLER: Work well into surface. Lay off in one direction. Avoid whipping air into the coating. Several applications may be required to achieve specific dry film thickness.

DRYING TIMES AT 25°C

| <u>Temperature</u> | <u>Between Coats *</u> | <u>Final Cure</u> |
|--------------------|------------------------|-------------------|
| 16°C | 24 Hrs | 10 Days |
| 24°C | 16 Hrs | 6 Days |
| 32°C | 12 Hrs | 3 Days |

* **OVERCOATING:** Allow Semstone 145-S to cure until firm, wash with soap and water, rinse with clean running water and dry before recoating or placing into service.

Surfaces cured beyond 36 hours must be washed with soap and water, rinsed, dried and lightly sanded or abrasive blasted.

CLEAN UP: Before it gels, Semstone 145-S may be cleaned from tools and equipment using Carboline Thinner # 2, followed by hot, soapy water.

STORAGE CONDITIONS:

| | |
|--------------|--------|
| Temperature: | 4-43°C |
| Humidity: | 0-100% |

CAUTION: MAY CONTAIN FLAMMABLE SOLVENTS. KEEP AWAY FROM SPARKS AND OPEN FLAMES. IN CONFINED AREAS WORKMEN MUST WEAR FRESH AIRLINE RESPIRATORS. HYPERSENSITIVE PERSONS SHOULD WEAR GLOVES OR USE PROTECTIVE CREAM. ALL ELECTRONIC EQUIPMENT AND INSTALLATIONS SHOULD BE MADE AND GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. IN AREAS WHERE EXPLOSION HAZARDS EXIST, WORKMEN SHOULD BE REQUIRED TO USE NONFERROUS TOOLS AND TO WEAR CONDUCTIVE AND NONSPARKING SHOES.



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