Carbothane 137HS

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Self-priming anti corrosive aliphatic acrylic polyurethane.
Description	Carbothane 137 HS is a fast-drying, high build, two component polyurethane coating which exhibits excellent dry times and handling characteristics required by Original Equipment Manufacturers. Has excellent UV resistance and good corrosion resistance in direct to metal applications for C1 to C3 environments, over primers for C4 to C5 environments.
Color	Available in a variety of colours. White and Pastel shades may require multiple coats for adequate hiding. Consult your local StonCor Africa Sales or Customer Service Department for availability. **NOTE:** Carboline is committed to being a “lead-free” supplier. This however results in certain bright colours having a lower obliteration in comparison to “lead-based” coatings. Some colours (particularly Reds, Oranges and Yellows) may require multiple coats when applied over darker surfaces. Light coloured primers are available to mitigate against this. **NOTE:** Some colours of Carbothane 137 HS may require two coats to hide when applied over darker surfaces.
Gloss	Semi-gloss
Dry Film Thickness	75 to 150 microns D.F.T. when applied direct to metal. 40 to 100 microns D.F.T. when used as a topcoat. **NOTE:** Excessive film thickness will cause gassing and poor film appearance.
Typical Uses	Recommended as a direct to metal finish coat or as a finish coat over properly primed substrates. Typical applications include air compressors, propane tanks, trailer chassis and frames, valves, pumps, waste water treatment plant equipment, agricultural equipment and general industrial equipment. **Not recommended for continuous immersion service**
Solid(s) Content	By Volume: 65% ± 2% (Colours) By Volume: 62% ± 2% (Aluminium)
Theoretical Coverage Rates	5,2m²/lt at 125 microns 8,67m²/lt at 75 microns 13m²/lt at 50 microns **NOTE:** Material and application losses will vary and must be taken into consideration when estimating job requirements.
Dry Temp. Resistance	Continuous: 93°C (199°F) Non-Continuous: 121°C (250°F) Discolouration may be observed above 82°C.
Substrates & Compatable Coatings	• Can be used over properly prepared steelwork. • Can be used over urethane, epoxy and others as recommended.

SUBSTRATES & SURFACE PREPARATION

General	Remove any oil, grease, dust, chalking and dirt from surface to be coated.
Steel	Abrasive blast to a near white metal finish in accordance with ISO 8501 Sa2½ to obtain a 25 to 50 micron blast profile.

MIXING & THINNING

Mixing	Mix separately, then combine and mix in the following proportions – do not mix partial kits: **5 Litre Kit:** Part A: 4.375 litre Part B: 0.625 litre
Thinning	Thin up to 20% by volume with Carboline Thinner # 25 for normal spray or brush application. **NOTE:** Substitute thinners may contain alcohols which will inhibit the cure of Carbothane 137 HS. Use of thinners other than those supplied or approved by StonCor Africa may ad-versely affect product performance and void product warranty, whether express or implied.
Pot Life	3 Hours at 25°C and less at higher temperatures. Pot life ends when the material becomes too viscous to use.

APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

Spray Application	Use sufficient air volume for correct operation of equipment. Use a 50% overlap with each pass of the gun. On irregular surfaces, coat the edges first, making an extra pass later.
Conventional Spray	Use a 10mm minimum I.D. material hose, 0,043” I.D. fluid tip and appropriate air cap. Hold approximately 300 to 350mm from surface and at a right angle to the surface.
Airless Spray	**Pump Ratio:** 30:1 (min)* **Material Hose:** 10mm I.D. (min) **Tip Size:** 0,013 to 0,015” **Output psi:** 2100 to 2300 (145-159 Bar) **Filter Size:** 60-100 mesh * Teflon packings are recommended and are available from the pump manufacturer.
Brush & Roller (General)	Brushing recommended only for touch up of small areas. Use natural bristle brush apply¬ing with full strokes. For roller application, use a short nap mohair roller with phenolic core. Avoid rebrushing and/or rerolling.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	18°C (64°F)	2°C (36°F)	2°C (36°F)	0%
Maximum	43°C (109°F)	54°C (129°F)	49°C (120°F)	85%
Optimum	24°C (75°F)	24°C (75°F)	23°C (73°F)	60%

Do not apply when the surface temperature is less than 2°C above the dew point.
Special thinning and application techniques may be required above or below normal conditions.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Final Cure
16°C (61°F)	8 Hours	10 Days
24°C (75°F)	4 Hours	7 Days
32°C (90°F)	2 Hours	5 Days

NOTE: The above times are based on ASTM 1640, Drying, Curing or Film Formation of Organic Coatings, Section 7.7 (dry to handle).
These times are based on recommended dry film thickness of 75 microns. Higher film thicknesses will lengthen cure times.

Curing Details

Relative Humidity: 50%
Rain Resistance: Requires a minimum of three hours at 25°C and longer at lower temperatures. Surface moisture before this time will decrease the gloss.

CLEANUP & SAFETY

Cleanup

Use Carboline Thinner # 2

Caution

Read and follow all caution statements on this product data sheet and on the material safety data sheet for this product.

PACKAGING, HANDLING & STORAGE

Shelf Life

Part A: 36 Months minimum when stored at 25°C
Part B: 24 Months minimum when stored at 25°C

NOTE: Polyurethane materials are moisture sensitive. Keep tightly covered before use. Moisture contamination will cause poor cure of the coating or gelation of Part B.

Shipping Weight (Approximate)

5 Litre:
Carbothane 137HS: 7.0kg
Thinner # 25: 4.9kg

Storage Temperature & Humidity

4 to 43°C
0 to 90%

Flash Point (Pensky Martens Closed Cup)

Carbothane 137 HS Part A: 17°C
Carbothane 137 HS Part B: 33°C
Carboline Thinner # 25: 23°C

Storage

Store indoors

WARRANTY

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