

CONTITHANE 7247 (UP-450HB) HIGH BUILD POLYURETHANE COATING

TYPE

A two-pack, high- build colored coating is based on acrylic polyol resin with polyisocyanates hardener.

USES

Use for wooden, metal, FRP products and steel structures such as ships, vehicles, bridges, oil refineries, power stations, pulp factories, chemical plants etc.

CHARACTERISTICS

- High gloss and an excellent appearance.
- Excellent weather resistance with gloss and color retention.
- Excellent resistance to chemicals.
- Excellent adhesion flexibility and abrasion resistance.
- CONTITHANE 7247 can be used in the corrosive environment above C4(according to ISO-12944-5).

PRACTICAL INFORMATION

Color	A broad range of colors is upon customer request.
Gloss Level	Gloss.
VOC Values	2.1 lbs/gal(255 g/l) , use CONTITHINNER 39 thinner to thin up 5% (2.42 lbs/gal=290 g/l) or 15% (3.0 lbs/gal=360 g/l).
Volume Solids	70±3%
Theoretical Coverage	1.0 mils =1136 ft ² /gal (27.9 m ² /l) 3.2 mils =355 ft ² /gal (8.7 m ² /l)
Typical Thickness	3.2~4 mils per coat. Dry film thickness in excess of 4 mils (100 microns) per coat is not recommended
Service Temperature	Continuous : 200°F(93°C) Non-Continuous :250°F(121°C)
Preceding Coats	Contipoxy 1102 Epoxy Primer / Contizinc 1073 Epoxy Zinc Rich Primer / Contipoxy 1620 Epoxy M.I.O. Primer / Contipoxy 1299 High Solids Epoxy Coating / Contizinc 7770 One Pack Polyurethane Maintenance Primer

SUBSTRATES & SURFACE PREPARATION

General	Remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating. Surfaces must be clean and dry. Moisture, grease, sludge, dust, corrosive salt must be thoroughly cleaned from substrate.
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SUBSTRATES & SURFACE PREPARATION

Primed Surfaces

CONTITHANE 7247 should always be applied over a recommended anti-corrosion coating scheme. The primer surface should be dry and free from all contamination and CONTITHANE 7247 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of Breakdown and Damage

Should be prepared to the specified standard (Sa2 1/2 (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of CONTITHANE 7247.

PERFORMANCE DATA

Test Method	System	Results
ASTM D522 method B Flexibility	1 ct. CONTITHANE 7247	No cracking and peeling on film
ASTM D2794 Impact resistance	1 ct. CONTITHANE 7247	No cracking and peeling on film
ASTM D3359 Adhesiveness between layers	1 ct. CONTIPOXY 1620 1 ct. CONTITHANE 7247	5A
ASTM D4060 Adhesion	Blasted Steel 1 ct. CONTIPOXY 1620 1 ct. CONTITHANE 7247	1680 psi
ASTM D4541 Abrasion	Blasted Steel 1 ct. CONTITHANE 7247	11.4mg. loss after 1000 cycles, CS17 wheel, 1000 gm. load
ASTM D4400 - 18 Sag Resistance	1 ct. CONTITHANE 7247	250 um
ASTM D4587 Accelerated Weathering (QUV-B)	Blasted Steel 1 ct. Contithane 7247	Withstand accelerated weather resistance Test of 1000hrs. Appearance : No blistering , cracking and peeling on film. Color difference: Not larger than reference sample. Chalking grade: 0 Gloss retaining ratio(%): 76.8

Test reports and additional data available upon written request.

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MIXING & THINNING

Mixing	Mix base and hardener according to the mixing ratio and stir thoroughly.
Mixing Ratio	Use PU Thinner (CONTITHINNER 39) to thin up 5~15% Base : Hardener = 85 : 15 (by volume) Some individual colors may be different.
Pot Life	3 hours at 77°F(mixture, 25°C)

APPLICATION EQUIPMENT GUIDELINES

Spray Application	Avoid applying the coating in rainy or humid weather (the moisture above 85% RH), otherwise the adhesion will be affected by moisture of substrate and the coating film will be loss its gloss. All equipment must be cleaned immediately after use. When overcoating interval is exceeded, coating surface must be roughened to ensure adhesion. Hardener covers must be tightly closed to avoid reaction with moisture in air to form bubbles and gelation.
Airless Spray	Pump ratio 30:1 or greater Tip size : 0.015"~ 0.019" Output PSI : 2100~2500
Brush	Application by brush is applicable. For special condition please consult with product manufacturer.
Roller	Application by roller is applicable. For special condition please consult with product manufacturer.

APPLICATION CONDITIONS

Condition	Coating	Surface	Environment	Humidity
Normal	68°F~86°F (20~30°C)	68°F~86°F (20~30°C)	68°F~86°F (20~30°C)	30~55%
Minimum	41°F (5°C)	41°F (5°C)	41°F (5°C)	0%
Maximum	95°F(35°C)	108°F(42°C)	108°F(42°C)	85%

Industry standards are for substrate temperatures to be 5°F(3°C) above the dew point . The product simply requires the substrate temperature to be above the dew point.

Caution : This Product is moisture sensitive in the liquid stage and until cured. Protect from high humidity, dew and direct moisture contact until cures. Application and/or curing in humidities above maximum, or exposure to moisture from rain or dew may result in a loss of gloss and/or microbubbling of the product.

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CURING SCHEDULE

Surface Temp. (50% Relative Humidity)	Touch Dry	Hard Dry	Dry to Handle
41°F (5°C)	18 hours	30 hours	30 hours
59°F (15°C)	10 hours	20 hours	20 hours
77°F (25°C)	1.5 hours	8 hours	8 hours
95°F (35°C)	1 hours	5 hours	5 hours

OVERCOATING INTERVAL

Surface Temp. (50% Relative Humidity)	Minimum	Maximum
41°F (5°C)	30 hours	18 days
59°F (15°C)	20hours	14 days
77°F (25°C)	8 hours	10 days
95°F (35°C)	5 hours	7 days

CLEANER & SAFETY

Cleaner	Use PU Thinner (CONTITHINNER 39) to clean. In case of spillage, absorb and dispose of in accordance with local applicable regulations.
Safety Ventilation	Please read and follow all caution statements on this product data sheet and MSDS for this product. Proper ventilation and protective measures must be provided during application and drying to keep solvent vapor concentrations within safe limits and to protect against toxic or oxygen deficient hazards.

PACKAGE, HANDLING & STORAGE

Shelf Life	Part A :Minimum 2 years under normal storage conditions Part B :Minimum 1 years under normal storage conditions
Shipping Weight	Part A : 1 Gallon – 3.94kg 5 Gallon –19.4 kg Part B : 1 Gallon – 0.74kg 5 Gallon – 3.3 kg
Storage Temperature &Humidity	41-95°F (5-35°C) 0-90% Relative Humidity
Flash Point	Part A: 77°F (25°C) Part B: 116°F (47°C)
Storage	Store in dry, shaded conditions away from sources of heat and ignition.