

CONTITHANE 7245 (UP-450)

HIGH SOLIDS POLYURETHANE FINISH

TYPE

A two-packs, high-solids colored coating is based on acrylic polyol resin with non-yellowing polyisocyanate 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 excellent appearance.
- Excellent weather resistance with gloss and color retention.
- Excellent resistance to chemicals.
- Excellent adhesion, hardness, flexibility and abrasion resistance.

PRACTICAL INFORMATION

Color	A broad range of colors is upon customer request
Gloss Level	Gloss
VOC Values	2.86 lbs/gal(336 g/l) , use Contithinner36 to thin up 5% (3.21 lbs/gal=378 g/l) or 15% (3.78 lbs/gal=445 g/l).
Volume Solids	Above 57%
Theoretical Coverage	1 mils : 928.3 ft ² /gal (86.4 m ² /l) 2.4 mils : 386.8 ft ² /gal (36 m ² /l)
Typical Thickness	1.6~3.2 mils per coat. Dry film thickness in excess of 3.2 mils (80 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.
Primed Surfaces	Contithane 7245 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Contithane 7245 must be applied within the overcoating intervals specified. (consult the relevant product data sheet)

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SUBSTRATES & SURFACE PREPARATION

Areas of Breakdown and Damage It 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 7245.

PERFORMANCE DATA

Test Method	System	Results
ISO 4628-6-07 ISO 4624-02 Cyclic Corrosive Test	Blasted Steel 1 ct. Contizinc 2701 (75 microns) 1 ct. Contipoxy 1699 (150microns) 1 ct. Contithane 7245 (60 microns)	Chalking rating : 0.5 Original adhesive strength : 5.2 MPa Percentage of adhesive strength retention after cyclic corrosive test : 62.9%(3.27 MPa)
ASTM F963 Soluble Heavy Metals Test	1 ct. Contithane 7245	n.d.(Sb、As、Cd、Cr、Pb、Hg、Se) Except UP450#yellow
CNS 15200-5-3 Flexibility	1 ct. Contithane 7245	No cracking and peeling on film
CNS 15200-7-6 Impact resistance	1 ct. Contithane 7245	No cracking and peeling on film
CNS 15200-5-6 Adhesiveness between layers	1 ct. Contipoxy 1216 1 ct. Contithane 7104 PU intermediate 1 ct. Contithane 7245	No abnormality
CNS 15200-6-1 Alkali resistance	1 ct. Contipoxy 1216 1 ct. Contithane 7104 PU intermediate 1 ct. Contithane 7245	No abnormality
CNS 15200-6-1 Acid resistance	1 ct. Contipoxy 1216 1 ct. Contithane 7104 PU intermediate 1 ct. Contithane 7245	No abnormality
CNS 15200-7-4 Humidity and cool-heat cycling resistance	1 ct. Contipoxy 1216 1 ct. Contithane 7104 PU intermediate 1 ct. Contithane 7245	Withstand humidity and cool-heat cycling
CNS 15200-7-6 Accelerated weather resistance	1 ct. Contipoxy 1216 1 ct. Contithane 7104 PU intermediate 1 ct. Contithane 7245	Withstand accelerated weather resistance test of 500hrs. Appearance : No blistering、cracking and peeling on film. Color difference: Not larger than reference sample. Chalking grade: 0 Gloss retaining ratio(%): 87

Test reports and additional data available upon written request.

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CERTIFICATION

- Norsok M-501-04 : Report number KV-12-08801XA-1 (SGS Taiwan Ltd.)
- CNS15665 K2247(2013) : Report number 140826373-1 (Taiwan Paint Industry Association)

MIXING & THINNING

- Mixing** Mix base and hardener according to the mixing ratio and stir thoroughly.
- Thinning** Use PU Thinner (Contithinner 36) to thin up 5~15%
Base : Hardener = 88 : 12 (by weight) Some individual colors may be different.
- Mixing Ratio** 3 hours at 77°F(mixture, 25°C)

APPLICATION EQUIPMENT GUIDELINES

- Spray Application** Avoid applying the paint in rainy or humid weather (the moisture above 85% RH), otherwise the adhesion will be affected by moisture of substrate and the paint film will be loss its gloss. All equipment must be cleaned immediately after use. When overcoating interval is exceeded, paint surface must be roughened to insure adhesion. Hardener cover 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 : Contithane 7245 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 not in the same font.

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CURING SCHEDULE

Surface Temp. (50% Relative Humidity)	Touch Dry	Hard Dry	Dry to Handle
41°F (5°C)	18 hours	24 hours	14 days
59°F (15°C)	10 hours	18 hours	10 days
77°F (25°C)	4 hours	6 hours	7 days
95°F (35°C)	1.5 hours	4 hours	5 days

OVERCOATING INTERVAL

Surface Temp. (50% Relative Humidity)	Minimum	Maximum
41°F (5°C)	24 hours	16 days
59°F (15°C)	18hours	14 days
77°F (25°C)	6 hours	8 days
95°F (35°C)	4 hours	6days

CLEANER & SAFETY

Cleaner	Use PU Thinner (Contithinner 36) 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 – 4.94kg 5 Gallon – 24.1kg Part B : 1 Gallon – 0.74kg 5 Gallon – 3.3kg
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.