DYNA-PUR™ 9066BL

Creative Material Technologies, Ltd.

Solving Today's Problems with Tomorrow's Technology

CMT GREEN

ISO Side — DYNA-PUR 9066BL (Side A)
RESIN Side — DYNA-PUR 9066BL (Side B)

PRODUCT INFORMATION

PRODUCT DESCRIPTION

DYNA-PUR 9066BL is a brushable/rollable grade of 100% solids polyurea that has been formulated to exhibit the physical properties of a high performance coating in a user-friendly product. This formulation exhibits excellent adhesion to concrete and other inorganic substrates. It contains a proprietary chemistry that bonds organic materials to inorganic materials.

PRODUCT CHARACTERISTICS

Finish: Glossy

Color: White, Cream, Beige, Safety Yellow, Blue, Green, Rust, Brown, Light Gray, Gray, Dark Gray, and Black.
Can be made by special order to be any color.

Percent Solids: 100%

VOC (calculated): 0

Mix Ratio: 2 ISO: 3 RESIN

Theoretical Coverage Rate:

	Minimum	Maximum
Wet mils (microns)	**10.0** (254)	**500.0** (12700)
Dry mils (microns)	**10.0** (254)	**500.0** (12700)
~Coverage sq ft/gal (m2/L)	**3.2** (0.08)	**160** (3.9)
Theoretical yield sq ft/gal (m2/L) @ 1 mil / 25 microns dft	**1600** (39.3)	

Curing Properties:
dependent upon temperature & humidity

Working Time: 25 – 40 minutes
Dry to Touch: 1 – 2 hours
Recoat Window: 4 hours
Return to Service: 16 – 48 hours (dependent upon use)

Pot-Life: 10 – 20 minutes

Shelf Life: 6 months from shipping date (unopened @ 25°C)

Flash Point: ISO - 316°F (158°C) *(ASTM D-3243, D-3278, D-3828)*
RESIN - >200°F (>93°C) *(Closed Cup)*

Viscosity : ISO – 500 @ 25°C, RESIN – 200 @ 20°C

RECOMMENDED USES (Examples listed)

- Basins and Reservoirs
- Boat Floor Coating
- Bridge Coatings
- Cold Storage Areas
- Concrete Decks
- Cooling Tower Linings
- DOE Nuclear Fuel Facilities
- DOE Nuclear Weapons Facilities
- Equipment Wash-Down Areas
- Foundation Coatings
- Garage Floor Coatings
- Highway Construction *(overpasses/metal culverts)*
- Insulated Concrete Form Coating
- Laboratory Floors
- Manhole and Sewer Linings
- Man-Hole Protective Coatings
- Man-Hole Restoration
- Marina Dock Coating
- Marine Bridge and Deck
- Marine Wood Coating
- Metal Culverts (galvanized)
- Metal DTM Coatings
- Nuclear Power Plants
- Pool Deck Coating
- Secondary Containment Areas
- Select Fuel Storage & Containment
- Tank Linings
- Terrace Floors
- Traffic Bearing Waterproofing
- Truck Freight Ramps
- Water Runoff/Overflow Areas
- Water Treatment Plant Treatment Pond Coatings
- Water Treatment Sluses & Estuaries
- Waterpark Features & Repairs
- Waterparks & Theme Parks

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Adhesion	ASTM D4541 Metal – unprimed	Pending
Elongation	ASTM D638	>100 %
Tensile Strength	ASTM D638	Pending
Shore D Hardness	ASTM D2240	55 (approx)
Typical UV Resistance	ASTM G53, 1000 hours, UVB 313 bulb	1000 hours QUV exposure with less than a Δ2 color change (Pending Testing)

All physical property reporting is subject to verification by third party laboratory.

PRODUCT FEATURES

EXHIBITS LONG-TERM PROTECTION WITH GOOD WATER, SOLVENT, CHEMICAL, UV, AND IMPACT RESISTANCE PROPERITES

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RECOMMENDED SYSTEMS

	Dry Film Thickness / ct. Mils	(Microns)
Direct to Steel (Atmospheric Exposure):		
DYNA-PUR 9066	8 – 15	(203 – 381)
DYNA-PUR 9041	7 – 10	(178 – 254)
Direct to Steel (No UV Interior):		
DYNA-PUR 9066	8 – 15	(203 – 381)
DYNA-PUR 9041	7 – 10	(178 – 254)
Steel (Atmospheric Exposure):		
DYNA-PRIME W-5	3 – 5	(76 – 127)
DYNA-PUR 9066	8 – 15	(203 – 381)
DYNA-PUR 9041	7 – 10	(178 – 254)
Concrete (Atmospheric Exposure):		
DYNA-PRIME W-5/N-23	1 – 5	(25 – 127)
DYNA-PUR 9066	8 – 15	(203 – 381)
DYNA-PUR 9041	8 – 15	(203 – 381)
DYNA-PRIME W-5	3 – 5	(76 – 127)
DYNA-PUR 9066	10 – 30	(254 – 762)
Concrete (Containment):		
DYNA-PRIME W-5/N-23	1 – 5	(25 – 127)
DYNA-PUR 9066	10 – 60	(254 – 1524)
DYNA-PUR 9051	10 – 30	(254 – 762)
DYNA-PRIME W-5	3 – 5	(76 – 127)
DYNA-PUR 9066	10 – 60	(254 – 1524)
DYNA-PUR 130/1120	30 – 100	(762 – 2540)
DYNA-PRIME W-5	3 – 5	(76 – 127)
DYNA-PUR 9066	10 – 20	(254 – 508)
DYNA-PUR 1137	30 – 100	(762 – 2540)
Concrete (Below Grade):		
DYNA-PRIME N-23	1 – 3	(25 – 76)
DYNA-PUR 9066	10 – 20	(254 – 508)
DYNA-PUR 9041	10 – 20	(254 – 508)

WARRANTY

LIMITED WARRANTY: This product is warranted to be of good quality when used according to the manufacturer's directions. It is not warranted for any other use or purpose. If proved to be defective, liability is limited to replacement of defective material, or refund of the purchase price of the material, at the option of Creative Material Technologies, Ltd. Improper mixing, incorrect application or other factors beyond the control of the manufacturer or its dealers may produce unsatisfactory results and cannot be held to be the manufacturer's or its dealer's responsibility. There are no other warranties, either expressed or implied. Creative Material Technologies, Ltd. will not be liable for any consequential, incidental, or special damages arising directly or indirectly from the use of this product.

SURFACE PREPARATION

The surface must be clean and dry to achieve proper adhesion. All cracks, joints, and seams should be filled with a polyurea, high elastomer material prior to coating. HydraLok SLR-2, by CMT, or similar product is recommended. Avoid acrylic caulks or any compound with silicone. If applicable, the floor should be prepped by degreasing with a degreaser, then mechanically abraded to achieve a 3-5 mil anchor profile.
Minimum recommended surface preparation:

Atmospheric:	SSPC-SP10/NACE 2, 3 mil (75 micron) profile
Immersion:	SSPC-SP10/NACE 2, 3 mil
Concrete & Masonry:	SSPC-SP13/NACE 6 or ICRI No. 310.2, CSP 3-5.

	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal		Sa 3	Sa 3	SP 5	1
Near White Metal		Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast		Sa 2	Sa 2	SP 6	3
Brush-Off Blast		Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted	C St 2	C St 2	SP 2	-
	Pitted & Rusted	D St 2	D St 2	SP 2	-
Power Tool Cleaning	Rusted	C St 3	C St 3	SP 3	-
	Pitted & Rusted	D St 3	D St 3	SP 3	-

TINTING

Product is pre-tinted. Do not tint.

APPLICATION CONDITIONS

Material:	40°F (4°C) minimum, 100°F (38°C) maximum
Air and surface:	0°F (-18°C) minimum, 120°F (49°C) maximum
	At least 5°F (2.8°C) above dew point
Relative humidity:	99% maximum

ORDERING INFORMATION

Packaging:

Drums:	Drum Sets (52 gal) 2 ISO 3 RESIN
Pails:	Pail Sets (5 gal) 2 ISO 3 RESIN
Gallons:	1 Gallon Cans
2.5 Quart Kit:	Cans: 2 ISO 3 RESIN
Quarts:	Cans

SAFETY PRECAUTIONS

WARNING! Skin and eye irritant. May cause skin sensitization. FIRST AID: Eyes – Flush with water for 15 minutes and call physician. Skin – Wash thoroughly with soap and water. Ingestion – Do not induce vomiting. Call Physician immediately. Use in well ventilated area. KEEP OUT OF REACH OF CHILDREN. Refer to the MSDS sheet before use.

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APPLICATION BULLETIN

SURFACE PREPARATIONS

Make sure that substrate has been prepared according to manufacturer's specifications for that particular substrate. The surface must be clean and dry to achieve proper adhesion. All cracks, joints, and seams should be filled with a polyurea, high elastomer material prior to coating. HydraLok SLR-2, by CMT, or similar product is recommended. Avoid acrylic caulks or any compound with silicone. If applicable, the floor should be prepped by degreasing with a degreaser, then mechanically abraded to achieve a 3-5 mil (76-127 microns) anchor profile.

Iron & Steel (immersion service)
Remove all oil and grease from surface by "Solvent" Cleaning per SSPC-SP1, using DYNA-CLEAN™ W-31 or equivalent. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Mechanically abrade to achieve a 3-5 mil (76-127 microns) anchor profile. Remove all weld spatter and round all sharp edges. Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

Iron & Steel (atmospheric service)
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1, using DYNA-CLEAN™ W-31 or equivalent. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Mechanically abrade to achieve a 3-5 mil (76-127 microns) anchor profile. Prime any bare steel the same day or before flash rusting occurs.

Concrete and Masonry
For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2, CSP 3-5. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with DYNA-PUR™ Patch 'n Go 8010 or HYDRALOK™ SLR-2 or 3

Concrete, Immersion Service:
For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2, CSP 3-5

Follow the standard methods listed below when applicable:
ASTM D4258 Standard Practice for Cleaning Concrete.
ASTM D4259 Standard Practice for Abrading Concrete.
ASTM D4260 Standard Practice for Etching Concrete.
ASTM F-1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
SSPC-SP 13/Nace 6 Surface Preparation of Concrete.
ICRI No. 310.2 Concrete Surface Preparation.

	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal		Sa 3	Sa 3	SP 5	1
Near White Metal		Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast		Sa 2	Sa 2	SP 6	3
Brush-Off Blast		Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted	C St 2	C St 2	SP 2	-
	Pitted &	D St 2	D St 2	SP 2	-
Power Tool Cleaning	Rusted	C St 3	C St 3	SP 3	-
	Pitted &	D St 3	D St 3	SP 3	-

APPLICATION CONDITIONS

Material:	40°F (4°C) minimum, 100°F (38°C) maximum
Air and surface:	0°F (-18°C) minimum, 120°F (49°C) maximum
	At least 5°F (2.8°C) above dew point
Relative humidity:	99% maximum

APPLICATION EQUIPMENT

- Use ¼" to 3/8" foam rollers for application.
- Note: Use the "black" foam, not the "yellow" foam rollers.
- Good quality roller pins are suggested.
- Paint tray with disposable paint tray liners.
- Measuring and mixing containers.
- Stirring equipment and stirring sticks.

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APPLICATION PROCEDURES

Mixing Instructions: Mix RESIN side by itself thoroughly so that pigmentation is uniform. It is important that the material be thoroughly mixed including any material along the sides and bottom of the mixing container. Do not whip or introduce air into the material while mixing. Stir ISO side gently but thoroughly by hand. **Mix 2 parts ISO to 3 parts RESIN** together with a Jiffy or Squirrel mixer in clean container until thoroughly mixed. Be careful not to introduce air into the mixture.

Mix only enough product that can be applied in 10-20 minutes.

Theoretical Coverage Rate:

	Minimum	Maximum
Wet mils (microns)	**10.0** (254)	**500.0** (12700)
Dry mils (microns)	**10.0** (254)	**500.0** (12700)
~Coverage sq ft/gal (m2/L)	**3.2** (0.08)	**160** (3.9)
Theoretical yield sq ft/gal (m2/L) @ 1 mil / 25 microns dft	**1600** (39.3)	

Curing Properties:

dependent upon temperature & humidity

Working Time:	25 – 40 minutes
Dry to Touch:	1 – 2 hours
Recoat Window:	4 hours
Return to Service:	16 – 48 hours (dependent upon use)
Pot-Life:	10 – 20 minutes

CLEAN UP INSTRUCTIONS

Cured product may be disposed of without restriction. Clean ISO Side with acetone. Clean RESIN Side with warm, soapy water. Mixed, uncured product may be cleaned up with acetone. Follow manufacturer's instructions when using acetone. Cured product cannot be removed off of substrate without use of mechanical equipment. Uncured product must be disposed of according to local, state, and federal laws.

DISCLAIMER

While every attempt has been made to supply information as accurately as possible, CMT does not guarantee the accuracy of this information nor the suitability of this product for any purpose.

PERFORMANCE TIPS

For concrete, always perform Calcium Chloride test as per ASTM F1869.

**Where primers are used, do not fill the profile on concrete or steel with excess primer. Allow the primer to become "tack-free" before coating – usually 2 hours. Surface should not be allowed to get wet between primer coat and base coat. The surface is "tack-free" when the primer does not transfer onto your gloves when you press down on it.

For immersion applications, a minimum total dry film thickness of 40 mils (1016 microns) on steel and 60 mils (1524) microns on concrete is required.

For Immersion Service: (if required) Holiday test in accordance with ASTM D5162 for steel, or ASTM D4787 for concrete.

For steel, stripe coat all chine, welds, bolted connections, and sharp angles to prevent early failure in these areas. For concrete all cracks must receive a 6" wide by 30 mil (762 micron) dft bridge coat after cracks have been properly filled.

CHEMICAL RESISTANCE

Immersion at 25°C for 7 days unless otherwise indicated

Acetic Acid 100%	T	Gasoline	T
Acetone	T	Hydrochloric Acid 10%	T
Antifreeze 50% Ethylene Glycol	T	Motor Oil	T
Battery Acid (Sulfuric at 35%)	T	Sodium Hydroxide 10%	T
Brake Fluid	T	Sulfuric Acid 10% (10 days)	T
Toluene	T	Water (at 25 °C)	T

R= Recommended for use
C = Caution (Some swelling, cracking or damage may occur)
N = Not recommended for use
S = Color Staining (No change of physical properties)
T = Testing underway

SAFETY PRECAUTIONS

WARNING! Skin and eye irritant. May cause skin sensitization. FIRST AID: Eyes – Flush with water for 15 minutes and call physician. Skin – Wash thoroughly with soap and water. Ingestion – Do not induce vomiting. Call Physician immediately. Use in well ventilated area. KEEP OUT OF REACH OF CHILDREN. Refer to the MSDS sheet before use.

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