UNI-GRIP® 4380

Modified Epoxy Flat Dry Fog Primer & Finish

Cat. # 4380-XXXX

PRODUCT DESCRIPTION

Generic: Modified Epoxy

General Description: A premium quality modified epoxy flat dry fog paint with excellent adhesion to most types of properly prepared interior ceilings and overhead roof decking, joists, beams and ducts, including preprimed or primed steel, galvanized steel, nonferrous metals and concrete. Overspray dries to a non-adhering dust in about a 10-foot fall under conditions of moderate humidity and temperature.

Typical Uses: May be used direct-to-metal in interior, dry areas and as a single coat finish on most surfaces. Suitable for use as a prime coat on all surfaces under dry fog paints, interior alkyd finishes or interior latex finishes. May also be used in exterior areas on overhead concrete, galvanized steel and preprimed roof decking not subject to direct weathering such as enclosed parking garages, etc.

FEATURES

Advantages:

- Attractive flat appearance
- All purpose coating for most overhead surfaces
- Rapid dry
- Easy clean-up of overspray
- Good moisture resistance
- Excellent adhesion
- Resistant to discoloration from mild fumes

Limitation of Use: Not recommended on exterior wood or exterior areas subject to direct weathering.

SPECIFICATION DATA

Color: White (1000 - tintable up to 2 oz./gal.) & Black (9990)
Finish: Flat
Clean-up Solvent: Xylene
Weight/Gallon: 12.9 lbs./gal. (1.55 kg/L) - varies with color
VOC: 3.32 lbs./gal. (398 g/L) - varies with color
Solids By Volume: 50% ± 2% - varies with color
Theoretical Coverage at 1.0 Mil Dry: 802 sq. ft./gal. (20 m^2/L)
Practical Coverage: Apply at 300-400 sq. ft./gal. (7-10 m^2/L). Actual coverage may vary depending on substrate and application method.
Recommended Film Thickness: 2.0 mils (50 microns) dry - 4.0 mils (100 microns) wet
Systems: Please consult the appropriate system guide, the particular job specification or your ICI Paints Representative for proper systems using this product. Systems must be selected considering the particular environment involved.
Dry Time (ASTM D 1640) @ 77°F (25°C) & 50% RH:

To touch - 45 minutes
Dry fallout - 10 ft drop
To recoat - Overnight

Ventilation, film thickness, humidity, thinning and other factors can influence the rate of dry.
Warning: The above table provides general guidelines only. Always consult your ICI Paints Representative for appropriate recoat windows since the maximum aged recoat time of this product may be significantly shortened or lengthened by a variety of conditions, including, but not limited to humidity, surface temperature, and the use of additives or thinners. The use of accelerators or force curing may shorten the aged recoat of individual coatings. The above recoat windows may not apply if recoating with a product other than those listed above. If the maximum aged recoat window is exceeded, please consult your ICI Paints Representative for appropriate recommendations to enhance adhesion. Failure to observe these precautions may result in intercoat delamination.
Shelf Life: 1 year minimum - unopened

PERFORMANCE DATA

PROPERTY	TEST METHOD	RESULTS
Pencil Hardness	ASTM D 3363	B
Flexibility	ASTM D 522, Method B	Pass 3/16"
Water Resistance	ASTM D 2247	No effect @ 1000 hours
Service Temperature Limit:		225°F (93°C) in air
Flame Spread Rating:	ASTM E 84	Class A (0-25) over non-combustible surfaces

DANGER! COMBUSTIBLE. HARMFUL OR FATAL IF SWALLOWED. Read label and Material Safety Data Sheet Prior to Use. See other cautions on last page. DSF2-0790

09800

DEVOE COATINGS
9 FINISHES SPECIAL COATINGS (9800)

GENERAL SURFACE PREPARATION

All surfaces must be sound, dry, clean, and free of oil, grease, dirt, mildew, form release agents, curing compounds, loose and flaking paint and other foreign substances. pH of masonry surfaces must be 10.0 or lower.

New Surfaces: Concrete, Masonry and Plaster- Allow to cure at least 30 days before painting. pH must be 10.0 or lower. Roughen unusually slick poured or pre-cast concrete by acid etching or abrasive sweeping. Follow acid manufacturer's application and safety instructions. Rinse thoroughly with water and allow to dry. Must be internally dry. Remove loose aggregate. Prime with this product. Fill concrete block with latex filler BLOXFIL® 4000 or PREP & PRIME® 3010 filler. **Steel** - Exterior, prime with DEVSHIELD™ 4130, DEVGUARD™ 4160 or 4360 primer. Interior, prime with this product; areas subject to occasional humidity or constant moisture, prime with DEVSHIELD 4130, DEVGUARD 4160 or 4360 primer. **Galvanized Metal and Aluminum**- Prime with this product. **Preprimed Roof Decking**- Prime with this product.

Previously Painted Surfaces: Remove oil or grease residue by washing. Rinse thoroughly with water and allow to dry. Dull glossy areas by light sanding. Remove sanding dust. Remove loose paint. Scrub heavy chalk areas and overhead areas such as eaves with soap and water. Remove all mildew by washing with a solution of 16 oz. (473 ml) liquid household bleach and two oz. (59 ml) non-ammoniated liquid detergent per gallon (3.785 L) of water. Rinse thoroughly with water and allow to dry. Wire brush rusty areas and prime these areas with solvent- borne DEVSHIELD 4130 primer.

DIRECTIONS FOR USE

Tinting: White may be tinted with up to two oz./gal. of ICI Paints Colorants or CHROMA-CHEM* 844 colorants.

Spreading Rate: Apply at 300-400 sq. ft./gal. (7-10 m²/L) or 2.0 mils dry (4.0 mils wet). Allow for normal application losses and surface irregularities.

Important: For best adhesion, maximum film thickness must be less than 5.0 mils dry. Overbuilding and/or dry spraying may cause poor adhesion and peeling.

Application: Mix well before use. Spray only. No thinning required. For airless spray use a .017" tip. Adjust pressure as needed. Do not apply in damp weather or when surface or air temperature is below 40°F (4°C).

Drying Time (ASTM D 1640)**:** At 77°F (25°C) and 50% R.H., dries to touch in 45 minutes and to recoat overnight. Dry fallout is 10 feet. Low temperature, high humidity, thick films or poor ventilation will increase these times and dry fallout distance.

Clean-up: Clean immediately with xylene.

PRECAUTIONS

DANGER! COMBUSTIBLE LIQUID AND VAPOR. HARMFUL OR FATAL IF SWALLOWED. ASPIRATION HAZARD - CAN ENTER LUNGS AND CAUSE DAMAGE. HARMFUL IF INHALED. MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS, INCLUDING DIZZINESS, HEADACHE OR NAUSEA. CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION. OVEREXPOSURE MAY CAUSE LIVER, KIDNEY DAMAGE. CONTAINS CRYSTALLINE SILICA WHICH CAN CAUSE LUNG CANCER AND OTHER LUNG DAMAGE IF INHALED. WHEN TINTED, CONTAINS ETHYLENE GLYCOL WHICH CAN CAUSE SEVERE KIDNEY DAMAGE WHEN INGESTED AND HAS BEEN SHOWN TO CAUSE BIRTH DEFECTS IN LABORATORY ANIMALS. USE ONLY WITH ADEQUATE VENTILATION. KEEP OUT OF THE REACH OF CHILDREN. NOTICE: Products in this series contain solvents. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. For emergency information call (800) 545-2643. **Note: These warnings encompass the product series. Prior to use, read and follow product-specific MSDS and label information.** Keep away from heat, sparks and flame. **Do not** smoke. Vapors may ignite. Extinguish all flames, burners, stoves, heaters and pilot lights and disconnect all electrical motors and appliances before use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation. If sanding, wear a dust mask to avoid breathing of sanding dust. Do not breathe vapors or spray mist. Ensure fresh air entry during application and drying. Avoid contact with eyes and skin. If you experience eye watering, headaches, or dizziness, leave the area. If properly used, a respirator may offer additional protection. Obtain professional advice before using. Close container after each use. **FIRST AID**: For skin contact, wash thoroughly with soap and water. If any product remains, gently rub with petroleum jelly, vegetable or mineral/baby oil then wash again with soap and water. Repeat as needed. Remove contaminated clothing. For eye contact, flush immediately with plenty of water for at least 15 minutes. **Get medical attention**. If swallowed, **get medical attention immediately**. If inhalation causes discomfort, remove to fresh air. If discomfort persists or breathing difficulty occurs, get medical attention. **KEEP FROM FREEZING.**

DS45-0806

SHIPPING

Flash Point: 100°F (38°C)
Packaging: 5 gallons (18.925L)

Shipping Weight: 5 gallon pail - 69 lbs. (31.3 kg)

*CHROMA-CHEM is a Registered Trademark of Degussa GmbH.

4380 (05/07)
Ad Stock #68619B

DEVOE HIGH PERFORMANCE COATINGS
Strongsville, Ohio U.S.A.
800-654-2616
www.devoecoatings.com

ICI Paints

MATERIAL SAFETY DATA SHEET

prepared 07/21/06

ICI Paints North America 15885 Sprague Road Strongsville, Ohio 44136 EMERGENCY TELEPHONE NO. (800) 545-2643

HAZARDS IDENTIFICATION (ANSI Section 3)

Primary route(s) of exposure : Inhalation, skin contact, eye contact, ingestion.

Effects of overexposure :

Inhalation : Irritation of respiratory tract. Prolonged inhalation may lead to loss of appetite, mucous membrane irritation, fatigue, drowsiness, dizziness and/or lightheadedness, headache, uncoordination, nausea, vomiting, coughing, sneezing, central nervous system depression, intoxication, difficulty of breathing, tremors, severe lung irritation or damage, pulmonary edema, convulsions, loss of consciousness, asphyxiation.

Skin contact : Irritation of skin. Prolonged or repeated contact can cause dermatitis, defatting. Skin contact may result in dermal absorption of component(s) of this product which may cause drowsiness, dizziness and/or lightheadedness, central nervous system depression.

Eye contact : Irritation of eyes. Prolonged or repeated contact can cause conjunctivitis, blurred vision, tearing of eyes, redness of eyes, corneal injury.

Ingestion : Ingestion may cause lung inflammation and damage due to aspiration of material into lungs, mucous membrane irritation, nausea, vomiting, diarrhea, gastro-intestinal disturbances, abdominal pain, central nervous system depression, pulmonary edema.

Medical conditions aggravated by exposure : Eye, skin, respiratory disorders, asthma-like conditions.

FIRST-AID MEASURES (ANSI Section 4)

Inhalation : Remove to fresh air. Restore and support continued breathing. Get emergency medical attention. Have trained person give oxygen if necessary. Get medical help for any breathing difficulty. Remove to fresh air if inhalation causes eye watering, headaches, dizziness, or other discomfort.

Skin contact : Wash thoroughly with soap and water. If any product remains, gently rub petroleum jelly, vegetable or mineral/baby oil onto skin. Repeated applications may be needed. Remove contaminated clothing. Wash contaminated clothing before re-use. If irritation occurs, consult a physician.

Eye contact : Flush immediately with large amounts of water, especially under lids for at least 15 minutes. If irritation or other effects persist, obtain medical treatment.

Ingestion : If swallowed, obtain medical treatment immediately.

FIRE-FIGHTING MEASURES (ANSI Section 5)

Fire extinguishing media : Dry chemical or foam water fog. Carbon dioxide. Closed containers may explode when exposed to extreme heat or fire. Vapors are heavier than air and may travel long distances to a source of ignition and flash back. Vapors can form explosive mixtures in air at elevated temperatures. Closed containers may burst if exposed to extreme heat or fire. May decompose under fire conditions emitting irritant and/or toxic gases.

Fire fighting procedures : Water may be used to cool and protect exposed containers. Firefighters should use full protective clothing, eye protection, and self-contained breathing apparatus.

Hazardous decomposition or combustion products : Carbon monoxide, carbon dioxide, oxides of sulfur, toxic gases. Oxides of calcium.

ACCIDENTAL RELEASE MEASURES (ANSI Section 6)

Steps to be taken in case material is released or spilled : Comply with all applicable health and environmental regulations. Eliminate all sources of ignition. Ventilate area. Spills may be collected with absorbent materials. Use non-sparking tools. Evacuate all unnecessary personnel. Place collected material in proper container. Complete personal protective equipment must be used during cleanup. Large spills - shut off leak if safe to do so. Dike and contain spill. Pump to storage or salvage vessels. Use absorbent to pick up excess residue. Keep salvageable material and rinse water out of sewers and water courses. Small spills - use absorbent to pick up residue and dispose of properly.

HANDLING AND STORAGE (ANSI Section 7)

Handling and storage : Store below 100f (38c). Keep away from heat, sparks and open flame.

Other precautions : Use only with adequate ventilation. Do not take internally. Keep out of reach of children. Avoid contact with skin and eyes, and breathing of vapors. Wash hands thoroughly after handling, especially before eating or smoking. Keep containers tightly closed and upright when not in use. Avoid conditions which result in formation of inhalable particles such as spraying or abrading (sanding) painted surfaces. If such conditions cannot be avoided, use appropriate respiratory protection as directed under exposure controls/personal protection. Empty containers may contain hazardous residues. Ground equipment when transferring to prevent accumulation of static charge.

EXPOSURE CONTROLS/PERSONAL PROTECTION (ANSI Section 8)

Respiratory protection : Control environmental concentrations below applicable exposure standards when using this material. When respiratory protection is determined to be necessary, use a NIOSH/MSHA (Canadian z94.4) Approved elastomeric sealing- surface facepiece respirator outfitted with organic vapor cartridges and paint spray (dust/mist) prefilters. Determine the proper level of protection by conducting appropriate air monitoring. Consult 29CFR1910.134 For selection of respirators (Canadian z94.4).

Ventilation : Provide dilution ventilation or local exhaust to prevent build-up of vapors. Use explosion-proof equipment.

Personal protective equipment : Eye wash, safety shower, safety glasses or goggles. Impervious gloves, impervious clothing, face shield.

STABILITY AND REACTIVITY (ANSI Section 10)

Under normal conditions : Stable see section 5 fire fighting measures

Materials to avoid : Oxidizers, acids, ammonium salts, magnesium. Nitrates.

Conditions to avoid : Elevated temperatures, contact with oxidizing agent, sparks, open flame, ignition sources.

Hazardous polymerization : Will not occur

TOXICOLOGICAL INFORMATION (ANSI Section 11)

Supplemental health information : Contains a chemical that may be absorbed through skin. Notice - reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Other effects of overexposure may include toxicity to liver, kidney, lungs.

Carcinogenicity : Contains crystalline silica which is considered a hazard by inhalation. IARC has classified crystalline silica as carcinogenic to humans (group 1). Crystalline silica is also a known cause of silicosis, a noncancerous lung disease. The national toxicology program (NTP) has classified crystalline silica as a known human carcinogen. The international agency for research on cancer (IARC) has classified carbon black as possibly carcinogenic to humans (group 2b) based on sufficient evidence in animals and inadequate evidence in humans. The international agency for research on cancer (IARC) has evaluated ethylbenzene and classified it as a possible human carcinogen (group 2b) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. In a 2 year inhalation study conducted by the national toxicology program (NTP), ethylbenzene vapor at 750 ppm produced kidney and testicular tumors in rats and lung and liver tumors in mice. Genetic toxicity studies showed no genotoxic effects. The relevance of these results to humans is not known. In a lifetime inhalation study, exposure to 250 mg/m3 titanium dioxide resulted in the development of lung tumors in rats. These tumors occurred only at dust levels that overwhelmed the animals' lung clearance mechanisms and were different from common human lung tumors in both type and location. The relevance of these findings to humans is unknown but questionable. The international agency for research on cancer (IARC) has classified titanium dioxide as possibly carcinogenic to humans (group 2b) based on inadequate evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.

Reproductive effects : High exposures to xylene in some animal studies, often at maternally toxic levels, have affected embryo/fetal development. The significance of this finding to humans is not known.

Mutagenicity : No mutagenic effects are anticipated

Teratogenicity : No teratogenic effects are anticipated

ECOLOGICAL INFORMATION (ANSI Section 12)

No ecological testing has been done by ICI paints on this product as a whole.

DISPOSAL CONSIDERATIONS (ANSI Section 13)

Waste disposal : Dispose in accordance with all applicable regulations. Avoid discharge to natural waters.

REGULATORY INFORMATION (ANSI Section 15)

As of the date of this MSDS, all of the components in this product are listed (or are otherwise exempt from listing) on the TSCA inventory. This product has been classified in accordance with the hazard criteria of the CPR (controlled products regulations) and the MSDS contains all the information required by the CPR.

Physical Data (ANSI Sections 1, 9, and 14)

Product Code	Description	Wt. / Gal.	VOC gr. / ltr.	% Volatile by Volume	Flash Point	Boiling Range	HMIS	DOT, proper shipping name
4380-1000	uni-grip 4380 modified epoxy flat dry fog primer & finish white	12.97	398.10	49.47	103 f	284-415	*320	paint, combustible liquid, UN 1263, PGIII
4380-9990	uni-grip 4380 modified epoxy flat dry fog primer & finish black	12.53	391.27	48.21	110 f	277-402	*320	paint, combustible liquid, UN 1263, PGIII

Ingredients Product Codes with % by Weight (ANSI Section 2)

Chemical Name	Common Name	CAS. No.	4380-1000	4380-9990
benzene, ethyl-	ethylbenzene	100-41-4		.1-1.0
2-propanol, 1-methoxy-, acetate	propylene glycol monomethyl ether	108-65-6	1-5	1-5
1,3,5-trimethylbenzene	1,3,5-trimethylbenzene	108-67-8	.1-1.0	.1-1.0
limestone	limestone	1317-65-3	40-50	
benzene, dimethyl-	xylene	1330-20-7	.1-1.0	.1-1.0
carbon black	carbon black	1333-86-4		1-5
titanium oxide	titanium dioxide	13463-67-7	5-10	
quartz	quartz	14808-60-7	.1-1.0	.1-1.0
nepheline syenite	feldspar-type minerals	37244-96-5		30-40
calcium carbonate	calcium carbonate	471-34-1	5-10	20-30
solvent naphtha (petroleum), medium aliphatic	medium aliphatic solvent naphtha	64742-88-7	10-20	10-20
solvent naphtha (petroleum), light aromatic	light aromatic solvent naphtha	64742-95-6	1-5	1-5
fatty acids, tall-oil, polymers with bisphenol a, epichlorohydin and rosin	medium epoxy ester	68038-22-2	5-10	5-10
silica	amorphous silica	7631-86-9	1-5	
benzene,1,2,4-trimethyl-	pseudocumene	95-63-6	1-5	1-5

Chemical Hazard Data (ANSI Sections 2, 8, 11, and 15)

		ACGIH-TLV				OSHA-PEL				S.R.	S2	S3	CC					
Common Name	CAS. No.	8-Hour TWA	STEL	C	S	8-Hour TWA	STEL	C	S	Std.				H	M	N	I	O
ethylbenzene	100-41-4	100 ppm	125 ppm	not est.	not est.	100 ppm	not est.	not est.	not est.	not est.	n	y	y	y	n	n	y	n
propylene glycol monomethyl ether	108-65-6	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
limestone	1317-65-3	10 mg/m3	not est.	not est.	not est.	5 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
xylene	1330-20-7	100 ppm	150 ppm	not est.	not est.	100 ppm	not est.	not est.	not est.	not est.	n	y	y	y	n	n	n	n
carbon black	1333-86-4	3.5 mg/m3	not est.	not est.	not est.	3.5 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	y	n

Footnotes:
C=Ceiling - Concentration that should not be exceeded, even instantaneously.
S=Skin - Additional exposure, over and above airborn exposure, may result from skin absorption.
n/a=not applicable
not est=not established
CC=CERCLA Chemical
ppm=parts per million
mg/m3=milligrams per cubic meter
Sup Conf=Supplier Confidential
S2=Sara Section 302 EHS
S3=Sara Section 313 Chemical
S.R.Std.=Supplier Recommended Standard
H=Hazardous Air Pollutant, M=Marine Pollutant
P=Pollutant, S=Severe Pollutant
Carcinogenicity Listed By:
N=NTP, I=IARC, O=OSHA, y=yes, n=no

Chemical Hazard Data (Continued) (ANSI Sections 2, 8, 11, and 15)

Common Name	CAS. No.	ACGIH-TLV 8-Hour TWA	ACGIH-TLV STEL	ACGIH-TLV C	ACGIH-TLV S	OSHA-PEL 8-Hour TWA	OSHA-PEL STEL	OSHA-PEL C	OSHA-PEL S	S.R. Std.	S2	S3	CC	H	M	N	I	O
titanium dioxide	13463-67-7	10 mg/m3	not est.	not est.	not est.	10 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	y	y	n
quartz	14808-60-7	.025 mg/m3	not est.	not est.	not est.	0.1 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	y	y	n
feldspar-type minerals	37244-96-5	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
calcium carbonate	471-34-1	10 mg/m3	not est.	not est.	not est.	5 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
medium aliphatic solvent naphtha	64742-88-7	not est.	not est.	not est.	not est.	500 x ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
light aromatic solvent naphtha	64742-95-6	not est.	not est.	not est.	not est.	500x ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
medium epoxy ester	68038-22-2	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
amorphous silica	7631-86-9	10 mg/m3	not est.	not est.	not est.	6 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
pseudocumene	95-63-6	25 ppm	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	y	n	n	n	n	n	n

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S=Skin - Additional exposure, over and above airborn exposure, may result from skin absorption.

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ppm=parts per million
mg/m3=milligrams per cubic meter
Sup Conf=Supplier Confidential

S2=Sara Section 302 EHS
S3=Sara Section 313 Chemical
S.R.Std.=Supplier Recommended Standard

H=Hazardous Air Pollutant, M=Marine Pollutant
P=Pollutant, S=Severe Pollutant
Carcinogenicity Listed By:
N=NTP, I=IARC, O=OSHA, y=yes, n=no