

## FEATURES

: Duraguard is a two-pack polyurethane (High grade) for topcoat with excellent gloss and retention.  
As a topcoat over an epoxy system for UV light resistance for bridge, chemical tank, outside of steel structure, chemical plant, ship.

## TECHNICAL INFORMATION

Type	: Acrylic Polyurethane Topcoat (non-yellowing)
Color	: White and other
Film appearance	: Gloss
Specific gravity	: $1.20 \pm 0.05$
Solid by volume	: $65 \pm 2 \%$
Flash point	: $35^{\circ}\text{C}$

		Minimum	Maximum	Recommended
Dry film thickness	(Microns)	50	75	60
Wet film thickness	(Microns)	77	115	92
Theoretical coverage.	m <sup>2</sup> / Liter	13.0	8.7	10.8
	m <sup>2</sup> / Gallon	49.2	32.8	41.0
Practical coverage.	m <sup>2</sup> / Liter	11.7	7.8	9.8
	m <sup>2</sup> / Gallon	44.0	29.5	37.0

Remark : Actual Surface coverage will depend on surface irregularities, Mixing, Application Condition method and technique; as well as the structure and dimensions of the object to be coated.

	Temperature	25 °C	30 °C	35 °C
Touch dry	Surface dry	90 mins	80 mins	70 mins
Recoat dry	Hard dry	6 hrs.	5 hrs.	4 hrs.
Full cure	Minimum	10 hrs.	9 hrs.	8 hrs.
	Maximum	-	-	-
Potlife		10 hrs.	8 hrs.	6 hrs.

Remark : Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly.

## FILM PERFORMANCE

Properties	Test Method	Criteria	Results
Adhesion	ASTM D 3359	5B	Passed
Flexibility	ASTM D 522 (Method B)	3 mm	Passed
Impact Test	ASTM D 2794	60 inch-pounds	Passed
Abrasion Resistance	ASTM D 4060	200 mg (Loss)	Passed
CS-17 Wheels, 1000 g load, 1000 cycles			
Chemical Resistance	ASTM D 1308	24 hrs.	Passed

## APPLICATION

Mixing Ratio	Part A	Part B	
By Volume	2.5	1	
By Weight	3	1	
Application Method	Airless Spray	Air Spray	Brush / Roller
Diluted by TOA Thinner 43	5-10	15-20	10-15
Applicator	Graco 415 Graco 513	Coventional Spray (Iwata)	Short Hair Stiff Nylon Roller (Stanley) Stiff Nylon Brush
Pressure	120-150 kg/cm <sup>2</sup>	3-4 kg/cm <sup>2</sup>	-

Mix Part A and Part B, strictly follow mix ratio recommendations before dilute by Thinner mixing and stir for 2-3 minutes until the mixture is homogeneous after leave 5 minutes before application.

## APPLICATION SYSTEM

## Surface Preparation

Steel

: Should be blast cleaned in accordance with NACE No.2 / SSPC-SP10 / ISO 8501:1 / SIS Sa 2.5 to a near-white finish using a suitable abrasive. And/or by use the surface preparation with requirements. of the primer and/or as the Spec of the project.

Remark : The surface must be thoroughly dry and apply the protective coating within 4 hours to cleaned surface.

Wall

: For New concrete - The concrete prior to laying plastic sheets to block moisture from underground. Then it should be left for curing concrete to solid and dry for about 3-4 weeks. Then, clean the surface free from dust, dirt, grease and most importantly, the surface is completely dry.

(Check moisture content must be less than 14%)

: For Old concrete - To remove the old paint film which loosely adhesion to as much as possible by Scraping with a shovel or Grinding machine to enhance adhesion. Then, clean the surface free from grease and oil with suitable solvent. Before primer coating should clean all surfaces free from dust, dirt, grease and most importantly, the surface is completely dry. (Check moisture content must be less than 14%).

## Before Recoat by Topcoat

: Remover all oil, grease, dirt, oxide and other foreign material by cleaning per SSPC-SP1, Solvent Cleaning before coating.

: If over 7 days gives cleaning surface by sand paper no. 320-400 and cleaning surface per SSPC-SP1, Solvent Cleaning before coating.

: Surface repaire (cracks, pores, holes) done with TOA Epoxy putty and polishing of surface with moltoprene disk.

## Coating System

## Protective Coating

: Primer	Rusttech	100 microns x 1 coat
: Topcoat	Duraguard	50 microns x 2 coats

## Concrete protective Coating

: Primer	Epoguard Varnish	50 microns x 1 coat
: Topcoat	Duraguard	50 microns x 2 coats



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Recommendation	<p>: The proper relative humidity in the work shall not exceed 85% RH.</p> <p>: The temperature of the substrate should be minimum 10°C and at least 3°C above the dew point of the air , temperature and relative humidity measured in the vicinity of the substrate for prevent moisture and water drop on substrate effective adhesion and drying time.</p>		
HANDLING AND STORAGE			
Storage condition	<p>: The product must be stored in accordance with national regulations. Storage conditions are to keep the containers in a dry, cool, well ventilated space and away from source of heat and ignition.</p>		
Shelf life	<p>: 24 months at 30-35 °C</p> <p>: The product must be stored in accordance with national regulations. Storage conditions are to keep the containers in a dry, cool, well ventilated space and away from source of heat and ignition. Containers must be kept tightly closed.</p>		
Package	Packaging size 1 Gallon Set	Part A : 1 Gallon	Part B : 1/4 Gallon
HEALTH AND SAFETY	<p>: Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not breathe or inhale mist. Avoid skin contact. Spillage on the skin should immediately be removed with suitable cleanser, soap and water. Eyes should be well flushed with water and medical attention sought immediately.</p> <p>: For detailed information on the health and safety hazards and precautions for use of this product, we refer to the Safety Data Sheet.</p>		
DISCLAIMER	<p>: The information in this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. However, as the product is often used under conditions beyond our control, we cannot guarantee anything only the quality of the product itself. We reserve the right to change the given data without notice.</p>		