For density g/cm^3	Regulator length mm (in.)	Diameter mm (in.)
1.30–1.40	130 (5 2/16)	100 (4)
1.40–1.50	126 (5)	100 (4)

Weight: approx. 2 kg (4.5 lb) for a standard density regulator with 20 m cable.

Approvals: CE, CSA, SEMKO, NEMKO, DEMKO

LVD approval according to EN61058

CSA approval: Cert no. 1330172

Cl.I Zone 0, Gr. IIC;

CL.I Div.1 Gr A, B, C&D;

Cl.II Gr. E, F&G;

Cl.III when installed to the certified Intrinsically Safe relay, Ex ia, rated for the locations per submitter controll drawing and installation manual.

Intrincically safe circuits are required for the automatic control system. - Use a EX-safety barrier (e.g. Prod. no. 84 01 07).

0080

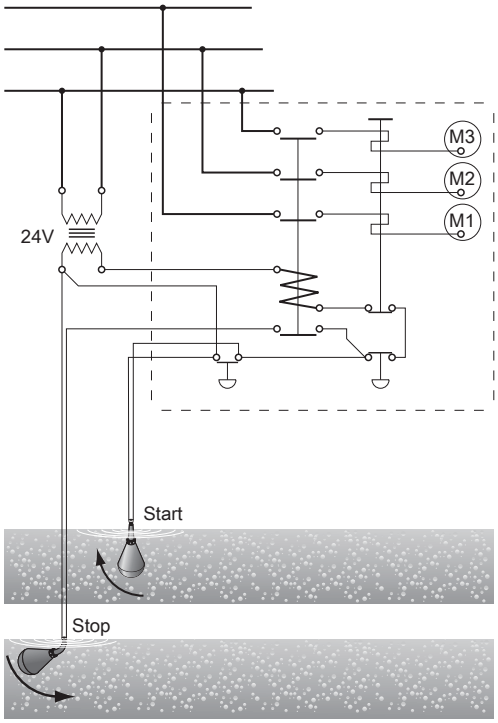
Figure 1

Wiring alternative

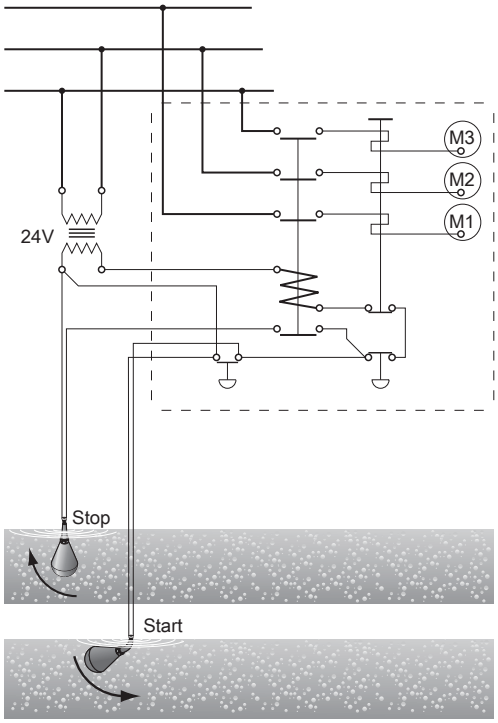
To conform to local regulations, the level regulators are normally connected through a transformer to a low-tension control circuit.

Two regulators are used; one for starting and one for stopping. A third regulator can be connected if an alarm is required at a given level.

Identical regulators can be used for all functions.



Connect the gray and black leads.



Connect the gray and brown leads.

Insulate the brown lead.
Figure 2: Connected for emptying

Insulate the black lead.
Figure 3: Connected for emptying

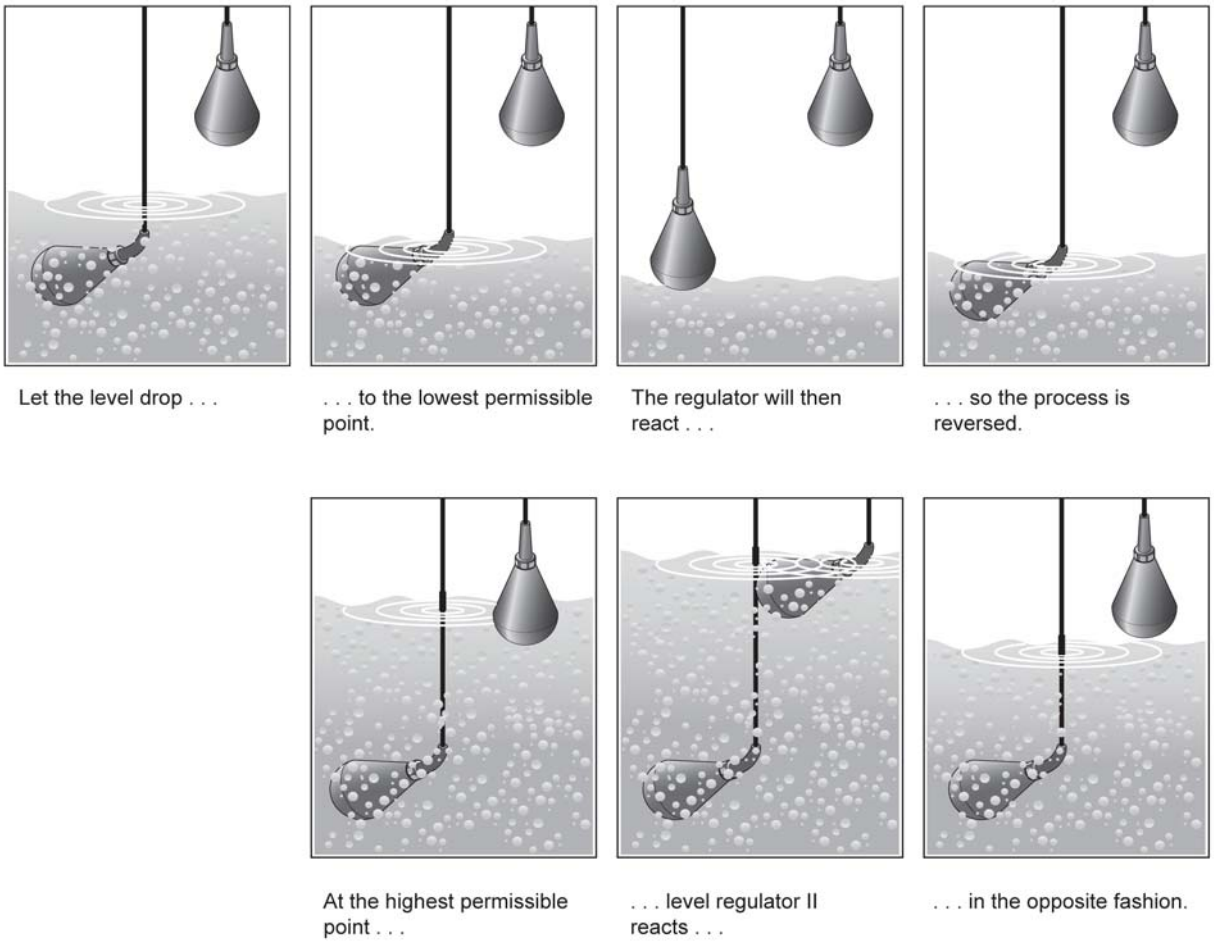


Figure 4

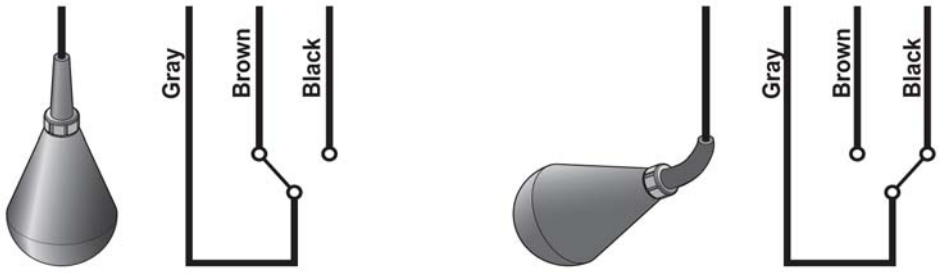


Figure 5: Colour code

Maintenance and repair

ENM-10 is very durable and practically maintenance free. You only have to check on it occasionally, to ensure its continual operation.

- It is recommended to occasionally clean ENM-10, and especially when fat/grease covers the plastic surface.
- At the same time, make an occular inspection of the regulator to make sure neither cable, protective sleeve or plastic casing show any signs of damage.

- A damaged ENM-10 cannot be repaired in any way, due to the hermetic encapsulation. If the unit is found to be damaged, replace it with a new one.
- For Ex-installations, also make absolutely sure that the Ex-barrier (e.g. Prod. no. 84 01 07) is operating correctly - The LED changes when the switch is toggled.

The manufacturers reserve the right to alter performance specification or design without notice.

CHEMICAL RESISTANCE LIST

Chemical resistance list

The liquid in which level regulation is practiced most frequently is, of course, water. Of the millions of regulators in use all over the world today, it is estimated that nine out of ten work in water.

However, with a float body of polypropylene, a cable of PVC or NBR/PVC nitrile/PVC rubber and a bending relief of EPDM rubber, the ENM-10 is virtually insensitive to many aggressive liquids.

The table shows how resistant the ENM-10 equipped with either PVC or NBR/PVC nitrile/PVC rubber cable, is to different chemicals at two different temperatures.

The classification is broken down into the following categories:

0 = No effect, 1 = Minor to moderate and 2 = Severe effect. The sign – means that information is not available.

Keep in mind also that the density of the liquid determines the bouyancy of the regulator. The ENM-10 is made for seven different densities. See *Product description* (page 2).

Always observe local regulations:

Take particular note of:

- risk of fire/explosion
- hygiene requirements

Acids	PVC cable		NBR/PVC nitrile/PVC rubber cable	
	20°C (68°F)	60°C (140°F)	20°C (68°F)	60°C (140°F)
Acetic Acid 50%	1	2	0	0
Acetic Acid 75%	2	2	0	0
Benzoic Acid	2	2	0	0
Boric Acid 5%	0	—	0	0
Butyric Acid	2	2	2	2
Chromic Acid 10%	0	2	2	2
Citric Acid	0	1	0	0
Hydrobromic Acid 5%	1	2	0	0
Hydrochloric Acid 10%	0	1	0	1
Hydrochloric Acid 37%	1	2	0	2
Hydrocyanic Acid 10%	0	0	1	2
Hydrofluoric Acid 5%	0	2	0	1
Hypochloric Acid	1	2	2	2
Maleic Acid	2	2	2	2
Nitric Acid 5%	1	1	1	1
Nitric Acid 65%	2	2	2	2
Oleic Acid	1	2	2	2
Oxalic Acid 50%	1	1	1	2
Phosphoric Acid 25%	0	0	1	2
Phosphoric Acid 85%	0	0	1	2
Sulphuric Acid 10%	1	2	1	2
Sulphuric Acid 78%	2	2	2	2
Tannic Acid	0	0	0	0
Tartaric Acid	1	1	1	1
Bases				
Ammonium Hydroxide	0	—	0	0
Calcium Hydroxide	0	0	0	0
Potassium Hydroxide	1	2	0	0
Sodium Hydroxide	1	2	0	0

Salts	PVC cable		NBR/PVC nitrile/PVC rubber cable	
	20°C (68°F)	60°C (140°F)	20°C (68°F)	60°C (140°F)
Aluminium Chloride	0	0	0	0
Calcium Sulphate	0	0	0	0
Calcium Chloride	0	0	0	0
Calcium Nitrate	0	0	0	0
Copper Chloride	0	0	0	0
Copper Sulphate	0	0	0	0
Ferric Chloride	0	0	0	0
Ferrous Sulphate	0	0	0	0
Magnesium Chloride	0	0	0	0
Potassium Sulphate	0	0	0	0
Potassium Nitrate	0	0	0	0
Potassium Carbonate	1	1	1	1
Potassium Bicarbonate	0	0	0	0
Sodium Sulphate	0	0	0	0
Sodium Chloride	0	0	0	0
Sodium Nitrate	0	0	0	0
Sodium Bicarbonate	0	0	0	0
Sodium Carbonate	0	0	0	0
Tin Chloride	1	1	1	1
Zinc Sulphate	0	0	0	0
Zinc Chloride	0	0	0	0
Oils				
Castor Oil	1	1	1	1
Cocoanut Oil	0	—	0	2
Corn Oil	2	2	2	2
Diesel Oil	2	2	2	2
Linseed Oil	2	2	2	2
Mineral Oils	2	2	2	2
Olive Oil	1	1	1	1
Silicone Oils	0	0	0	0

Solvents and miscellaneous	PVC cable		NBR/PVC nitrile/PVC rubber cable	
	20°C (68°F)	60°C (140°F)	20°C (68°F)	60°C (140°F)
Aceton	2	2	2	2
Aniline	2	2	1	2
Benzene	2	2	2	2
Butyl Alcohol	2	2	0	1
Carbon Tetrachloride	2	2	2	2
Chlorobenzene	2	2	2	2
Chloroform	2	2	2	2
Ethyl Alcohol	2	2	0	1
Ethyl Ether	2	2	2	2
Ethyl Acetate	2	2	2	2
Ethylene Dichloride	2	2	2	2
Ethylene Chloride	2	2	2	2
Formaldehyde 37%	1	2	0	0
Gasoline	2	2	2	2
Kerosene	2	2	2	2
Methyl Alcohol	2	2	0	0
Methyl Ethyl Ketone	2	2	2	2
Methylene Chloride	2	2	2	2
Nitrobenzene	2	2	2	2
Phenol	2	2	2	2
Toluene	2	2	2	2
Trichlorethylene	2	2	2	2
Turpentine	2	2	2	2
Xylene	2	2	2	2
Gases				
Carbon Dioxide	0	0	0	0
Carbon Monoxide	0	0	0	0
Chlorine (wet)	2	2	2	2
Hydrogen Sulphide	0	0	1	1
Sulphur Dioxide (wet)	1	1	2	2

0 = No effect, 1 = Minor to moderate, 2 = Severe effect. – = No information available.

Figure 6

PRODUCT RANGE

Product range

Part no.	For density [g/cm³]	Color of level switch	Type of cable	Cable length [m]	Approvals	For market	Notes
5828800	0,65-0,80	Blue	1	20	CE		
5828801	0,80-0,95	Blue	1	20	CE		
5828802	0,95-1,10	Blue	1	6	CE		
5828803	0,95-1,10	Blue	1	13	CE		
5828804	0,95-1,10	Blue	1	20	CE		
5828805	1,05-1,20	Blue	1	20	CE		
5828806	1,2-1,3	Blue	1	20	CE		
5828807	1,3-1,4	Blue	1	20	CE		
5828808	1,4-1,5	Blue	1	20	CE		
5828809	0,65-0,80	Grey	5	20	CSA/CE	Canada	
5828810	0,80-0,95	Grey	5	20	CSA/CE	Canada	
5828811	0,95-1,10	Grey	5	6	CSA/CE	Canada	
5828812	0,95-1,10	Grey	5	13	CSA/CE	Canada	
5828813	0,95-1,10	Grey	5	20	CSA/CE	Canada	
5828814	1,05-1,20	Grey	5	20	CSA/CE	Canada	
5828815	1,2-1,3	Grey	5	20	CSA/CE	Canada	
5828816	1,3-1,4	Grey	5	20	CSA/CE	Canada	
5828817	1,4-1,5	Grey	5	20	CSA/CE	Canada	
5828818	0,65-0,80	Grey	1	20	CSA/CE	Canada	
5828819	0,80-0,95	Grey	1	20	CSA/CE	Canada	
5828820	0,95-1,10	Grey	1	6	CSA/CE	Canada	
5828821	0,95-1,10	Grey	1	13	CSA/CE	Canada	
5828822	0,95-1,10	Grey	1	20	CSA/CE	Canada	
5828823	1,05-1,20	Grey	1	20	CSA/CE	Canada	
5828824	1,2-1,3	Grey	1	20	CSA/CE	Canada	
5828825	1,3-1,4	Grey	1	20	CSA/CE	Canada	
5828826	1,4-1,5	Grey	1	20	CSA/CE	Canada	
5828827	0,65-0,80	Blue	2	20	CE	USA	
5828828	0,80-0,95	Blue	2	20	CE	USA	
5828829	0,95-1,10	Blue	2	6	CE	USA	
5828830	0,95-1,10	Blue	2	13	CE	USA	
5828831	0,95-1,10	Blue	2	20	CE	USA	
5828832	1,05-1,20	Blue	2	20	CE	USA	
5828833	1,2-1,3	Blue	2	20	CE	USA	
5828834	1,3-1,4	Blue	2	20	CE	USA	
5828835	1,4-1,5	Blue	2	20	CE	USA	
5828836	0,95-1,10	Grey	5	30	CSA/CE	Canada	
5828837	0,95-1,10	Grey	5	50	CSA/CE	Canada	
5828838	0,95-1,10	Grey	5	100	CSA/CE	Canada	
5828839	0,95-1,10	Grey	5	150	CSA/CE	Canada	
5828851	0,95-1,10	Red	3	65	CE		
5828852	0,95-1,10	Red	3	6	CE		
5828853	0,95-1,10	Red	3	13	CE		
5828854	0,95-1,10	Red	3	20	CE		
5828855	0,95-1,10	Red	3	6	CSA/CE	Canada	
5828856	0,95-1,10	Red	3	13	CSA/CE	Canada	
5828857	0,95-1,10	Red	3	20	CSA/CE	Canada	

Cont. →

Figure 7

5828858	0,95-1,10	Red	4	6	CE	USA	
5828859	0,95-1,10	Red	4	13	CE	USA	
5828860	0,95-1,10	Red	4	20	CE	USA	
5828870	0,65-0,80	Blue	5	20	CE		
5828871	0,80-0,95	Blue	5	20	CE		
5828872	0,95-1,10	Blue	5	6	CE		
5828873	0,95-1,10	Blue	5	13	CE		
5828874	0,95-1,10	Blue	5	20	CE		
5828875	1,05-1,20	Blue	5	20	CE		
5828876	1,2-1,3	Blue	5	20	CE		
5828877	1,3-1,4	Blue	5	20	CE		
5828878	1,4-1,5	Blue	5	20	CE		
5828879	0,95-1,10	Blue	1	65	CE		
5828880	0,95-1,10	Blue	1	30	CE		
5828881	0,95-1,10	Blue	1	50	CE		
5828882	0,95-1,10	Grey	1	30	CSA/CE	Canada	
5828883	0,95-1,10	Grey	1	50	CSA/CE	Canada	
5828884	0,95-1,10	Blue	2	30	CE	USA	
5828885	0,95-1,10	Blue	2	50	CE	USA	
5828886	0,95-1,10	Red	3	30	CE		
5828887	0,95-1,10	Red	3	50	CE		
5828890	0,95-1,10	Blue	5	30	CE		
5828891	0,95-1,10	Blue	5	50	CE		
5828892	0,95-1,10	Red	3	6	CE	Japan	
5828893	0,95-1,10	Red	3	13	CE	Japan	
5828894	0,95-1,10	Red	3	20	CE	Japan	
5828895	0,95-1,10	Blue	1	6	CE	Japan	
5828896	0,95-1,10	Blue	1	13	CE	Japan	
5828897	0,95-1,10	Blue	1	20	CE	Japan	
5828898	0,95-1,10	Blue	1	50	CE	Japan	
5947919	0,95-1,10	Blue	5	20	CE		Designed for low current and slow movements
5947920	0,95-1,10	Grey	5	20	CSA/CE		Designed for low current and slow movements

Type of cable:

1. Blue PVC jacket with color coding of wires: Grey/Brown/Black
2. Blue PVC jacket with color coding of wires: Red/White/Black
3. Red PVC jacket with color coding of wires: Grey/Brown/Black
4. Red PVC jacket with color coding of wires: Red/White/Black
5. BLACK NBR/PVC jacket with color coding of wires: Grey/Brown/Black (NBR=Nitrile rubber)

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The original instruction is in English. All non-English instructions are translations of the original instruction.

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Project name: AMARUQ

Project#: 5000218009

Document #: SPK_0001_RX

by: LJ

chkd: GP

appvd: CB

METAL PRECIPITATION REACTOR

PAINT SPECS

OIM manual section: 4.3.1.6

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6.0 TREATMENT

6.1 Internal treatment

- Sandblast as per SSPC-SP-10;
- Brush application on welds and difficult to reach places (inside of holes and openings) of one layer of DURA_PLATE UHS by SHERWIN WILLIAMS, color « light green » and;
- Application of one coat of DURA-PLATE-UHS by SHERWIN WILLIAMS, 20 to 28 mils dft (restricted level 5 as per SSPC-PA 2), color « white NSF»;
- Important note: **Never dilute** the DURA-PLATE-UHS paint.

Only if needed, application of one coat of DURA-PLATE UHS PRIMER by SHERWIN WILLIAMS, 4 to 8 mils dft per coat, color “Gold”, if required depending on atmospheric conditions and delays between sandblast and paint.

6.2 External treatment

- Sandblast as per SSPC-SP-6;
- Spacing between intermittent welds should be filled with an hybrid sealant LOXON H-1 by SHERWIN WILLIAMS before the application of the external coating;
- Brush application on welds and difficult to reach places (inside of holes and openings) of one layer of ENVIROLASTIC 940 by SHERWIN WILLIAMS, color « White »;
- Application of one layer of ENVIROLASTIC 940 by SHERWIN WILLIAMS, 7.0 to 9.0 mils dft, (restricted level 5 as per SSPC-PA 2), color « John Meunier Blue ».

6.3 Piping treatment

Identical to the external coating of the works as stated for tank previously. There is no internal coating to provide for the nozzles of 3" diameter or less (should be made from Stainless Steel). Ensure pipe ends and flanges are covered with paint with the exception of the raised face.

6.4 Extra paint to be supplied

For every equipment, a touch-up paint kit of 1 gallon for both internal and exterior paint must be provided at shipping. Please attach the product label.

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Protective & Marine Coatings

NSF Certified to NSF/ANSI 61

DURA-PLATE® UHS

WITH OPTI-CHECK OAP TECHNOLOGY

PART A	B62-210	SERIES
PART A	B62W211	WHITE OAP (NSF)
PART B	B62V210	STANDARD HARDENER (NSF)
PART B	B62V211	LOW TEMP HARDENER (NSF)

Revised: December 3, 2014

PRODUCT INFORMATION

TRM.35

PRODUCT DESCRIPTION

DURA-PLATE UHS is an ultra high solids epoxy amine engineered specifically for immersion service in ballast tanks, oil tanks, and refined fuel storage tanks. The high build, edge-retentive properties of Dura-Plate UHS provide superior protection compared to conventional epoxies.

- Airless Spray
- One coat protection
- Low VOC
- Low odor
- High flash point, >200°F (93°C)
- Can be used with 1½ oz. fiberglass mat
- Low Temperature Hardener for applications down to 40°F (4.5°C).
- NSF approved to Standard 61 for potable water (tanks of 1000 gallons or greater and pipes of 30" diameter or greater.)

RECOMMENDED USES

For use over prepared steel or concrete surfaces in industrial and marine exposures such as:

- Meets MIL-PRF-23236, Type VII, Class 5, 7, 9 and 11, Grade C (standard hardener only)
- Ballast tank interiors, Oil storage tank interiors, Refined fuel storage tank and potable water tanks interiors and pipe.
- NSF approved for one coat application up to 50.0 mils (1250 microns) dft if required
- Water and waste treatment plants
- Buried Pipe Applications
- Primary and secondary containment areas
- Where edge protection film build properties are required
- Suitable for use with cathodic protection systems
- White B62W211 Contains OAP fluorescent pigment (NSF Approved)
- Suitable for use in the Mining & Minerals Industry

PRODUCT CHARACTERISTICS

Finish	Gloss
Color:	White OAP (NSF), White (NSF), Light Gray (NSF), Light Green (NSF), Black, Haze Gray
Volume Solids:	98% ± 2%, mixed
Weight Solids:	98% ± 2%, mixed
VOC (EPA Method 24):	
(with B62-V210 Hardeners)	<100 g/L; 0.83 lb/gal, mixed
(with B62V211 Hardener)	<100 g/L; 0.84 lb/gal, mixed
Mix Ratio:	4:1 by volume

Recommended Spreading Rate per coat*:

	1 coat system Min.		1 coat system Max.		2 coat system Min.		2 coat system Max.	
Wet mils (microns)	**18.0**	450	**22.0**	550	**10.0**	250	**12.0**	300
Dry mils (microns)	**18.0**	450	**22.0**	550	**10.0**	250	**12.0**	300
Total mils (microns)	**18.0**	450	**22.0**	550	**20.0**	500	**24.0**	600
~Coverage sq ft/gal (m^2/L)	**72**	1.76	**90**	2.2	**130**	3.18	**160**	3.9

Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil/25 micron dft: **1568** (38.4)

* See NSF Systems on next page.

NOTE: Brush or roll application recommended for stripe coating and repair only. Standard hardener preferred for brush & roll due to pot life.

Drying Schedule @ 10.0-22.0 mils wet (250-550 microns):

With B62-V210	@ 55°F/13°C 50% RH	@ 77°F/25°C	@ 100°F/38°C
To touch:	12 hours	5 hours	3 hours
To handle:	48 hours	14 hours	8 hours
To recoat:			
minimum:	48 hours	14 hours	8 hours
maximum:	21 days	14 days	14 days
Cure to service:	10 days	4 days	24 hours
Heat Cure:	8 hours @ ambient, then 16 hrs @ 140°F (60°C)*		

*Not NSF Approved. See Tips Section.

Pot Life*:	30-45 minutes	30-45 minutes	20-30 minutes
*Dependent upon temperature and mass			
Sweat-in-time:	15 minutes	None	None

PRODUCT CHARACTERISTICS (CONT'D)

With B62V211	@ 40°F/4.5°C	@ 55°F/13°C 50% RH	@ 77°F/25°C
To touch:	24 hours	5 hours	3 hours
To handle:	48 hours	24 hours	8 hours
To recoat:			
minimum:	48 hours	24 hours	8 hours
maximum:	30 days	21 days	14 days
Cure to service:	7 days	5 days	3 days
Heat Cure:	8 hours @ ambient, then 16 hrs @ 140°F (60°C)*		

Material should be at least 50°F (10°C) for optimal performance.

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

Sterilize and rinse per AWWA C652.

*Not NSF Approved. See Tips Section.

Pot Life*:	20 minutes	20 minutes	10 minutes
*Dependent upon temperature and mass			
Sweat-in-Time:	5 minutes	None	None

Shelf Life:	36 months Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point:	>200°F (93°C), PMCC, mixed
Reduction:	Not recommended
Clean Up:	MEK, R6K10 or R7K104 Reducer

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP10/NACE 2

System Tested*:

1 ct. Dura-Plate UHS @ 18.0 mils (450 microns) dft with B62GV210 Hardener

*unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	20.8 mg loss
Adhesion	ASTM D4541; ASTM D3359	800 psi, minimum (ASTM D4541); 5A (ASTM D3359)
Corrosion Weathering	ASTM D5894, 6 cycles, 2016 hours	Rating 10 per ASTM D610 for rusting and Rating 10 per ASTM D714 for blistering
Direct Impact Resistance	ASTM D2794; ASTM G14	30 in. lb. (ASTM D2794); 168 in. lb. (ASTM G14)
Dry Heat Resistance	ASTM D2485	250°F (121°C)
Flexibility	ASTM D522, 180° bend, 1/2" mandrel	Passes, 9.7% elongation
Immersion (Galvapac/1 ct Dura Plate UHS)	5 year potable water	Rating 10 per ASTM D610 for rusting and Rating 10 per ASTM D714 for blistering
Pencil Hardness	ASTM D3363	3H

IMMERSION (Ambient temperature):

- Ballast Tank mix ..... Recommended
- Crude oil ..... Recommended
- Diesel fuel ..... Recommended
- Ethanol or Gasohol ..... Recommended
- Fresh water/Potable Water ..... Recommended
- Fuel oil ..... Recommended
- Methanol or methanol blends ..... Not Recommended
- MTBE, TAME, ETBE ..... Recommended
- Refined petroleum products ..... Recommended
- Sea water ..... Recommended
- Hi-Aromatic Gasolines ..... Recommended

continued on back

Protective & Marine Coatings

NSF Certified to NSF/ANSI 61

DURA-PLATE® UHS

WITH OPTI-CHECK OAP TECHNOLOGY

PART A	B62-210	SERIES
PART A	B62W211	WHITE OAP (NSF)
PART B	B62V210	STANDARD HARDENER (NSF)
PART B	B62V211	LOW TEMP HARDENER (NSF)

Revised: December 3, 2014

PRODUCT INFORMATION

TRM.35

RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils	(Microns)
Steel, NSF Systems:			
1 ct.	Dura-Plate UHS Primer	4.0-8.0*	(100-200)
1 ct.	Dura-Plate UHS	10.0-12.0*	(250-300)
or			
1 ct.	Dura-Plate UHS	16.0-50.0	(400-1250)
or			
2 cts.	Dura-Plate UHS	8.0-25.0	(200-625)
or			
3 cts.	Dura-Plate UHS	8.0-16.0	(200-400)
Steel, OAP Fluorescent Pigment System			
1 ct.	Dura-Plate UHS (B62W211)	12.0-14.0	(300-350)
Steel:			
1 ct.	Dura-Plate UHS Primer	4.0-8.0**	(100-200)
1 ct.	Dura-Plate UHS	10.0-12.0	(250-300)
or			
2 cts.	Dura-Plate UHS	6.0-7.0	(150-175)
or			
1 ct.	Dura-Plate UHS	18.0-22.0	(450-550)
or			
2 cts.	Dura-Plate UHS	10.0-12.0	(250-300)
Steel, with hold primer:			
1 ct.	Macropoxy 5500 Primer (as required for blast hold primer)	1.0-1.5**	(25-40)
2 cts.	Dura-Plate UHS	10.0-12.0	(250-300)
Steel, Laminate System:			
1 ct.	Copoxy Shop Primer (as required for blast hold primer)	1.0-1.5	(25-40)
or			
1 ct.	Dura-Plate UHS Primer	4.0-8.0**	(100-200)
1 ct.	Steel-Seam FT910 as required for filling pits, and transitioning sharp edges, weld seams, etc.		
1 ct.	Dura-Plate UHS Clear Laminate Resin with 1½ oz. glass mat	40.0-45.0	(1000-1125)
1 ct.	Dura-Plate UHS as required to seal fiberglass mat	10.0-12.0	(250-300)
Concrete/Masonry:			
1 ct.	Corobond 100 Epoxy Primer/Sealer	4.0-6.0	(100-150)
	(or 1 ct Dura- Plate UHS Primer (as required for NSF)	4.0-8.0**	(100-200)
1 ct.	Dura-Plate UHS (as required for NSF)	10.0-12.0	(250-300)

* If primer is used, 10 mils (250 microns) dft maximum for primer and 14 mils (350 microns) dft maximum for topcoat.

** When using the B62L210 Primer containing the OAP fluorescent pigment, make sure a non-containing OAP fluorescent pigment Topcoat is used.

Refer to Application Bulletin for treatment of pitted tank bottoms.

The systems listed above are representative of the product's use, other systems may be appropriate.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Iron & Steel:
- Atmospheric: SSPC-SP6/NACE 3, 2 mil (50 micron) profile or SSPC-SP12/NACE No. 5, WJ-3/NV-2
- Immersion: SSPC-SP10/NACE2, 2-3 mil (50-75 micron)profile or SSPC- SP12/NACE No. 5, WJ-2/NV-2

Concrete & Masonry:
- Atmospheric: SSPC-SP13/NACE 6, or ICRI No. 310.2R CSP 2-3
- Immersion: SSPC-SP13/NACE 6-4.3.1 or 4.3.2, or ICRI No. 310.2R CSP 2-3

Surface Preparation Standards

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

Do not tint Part A.

Clear Hardeners B62V210 and B62V211 may be tinted with up to 1½ oz. per gallon with Maxitoner Colorant, Phthalo Green or Black (both NSF approved) **ONLY**.

APPLICATION CONDITIONS

Temperature (air, surface):
- B62-V210 Hardeners: 50°F (10°C) minimum, 110°F (43°C) maximum
- B62V211 Hardener: 40°F (4.5°C) minimum, 77°F (25°C) maximum

At least 5°F (2.8°C) above dew point

Material should be 70°F (21°C) to 85°F (29°C) or optimal performance.

Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:
- Part A: 4 gallon (15.1L) container
- Part B: 1 gallon (3.78L) container

Weight: 10.52 ± 0.2 lb/gal ; 1.26 Kg/L, mixed

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Protective & Marine Coatings

NSF Certified to NSF/ANSI 61

DURA-PLATE® UHS

WITH OPTI-CHECK OAP TECHNOLOGY

PART A	B62-210	SERIES
PART A	B62W211	WHITE OAP (NSF)
PART B	B62V210	STANDARD HARDENER (NSF)
PART B	B62V211	LOW TEMP HARDENER (NSF)

Revised: December 3, 2014

APPLICATION BULLETIN

TRM.35

SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Iron & Steel (atmospheric service)
Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3 or SSPC-SP12/NACE No. 5. For surfaces prepared by SSPC SP6/NACE 3, first remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. For better performance, use Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2-3 mils / 50-75 microns). For surfaces prepared by SSPC-SP12/NACE No. 5, all surfaces shall be cleaned in accordance with WJ-3/NV2. Pre-existing profile should be approximately 2 mils (50 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

Iron & Steel (immersion service)
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2, or SSPC-SP12/NACE No. 5. For SSPC-SP10/NACE 2 blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2-3 mils / 50-75 microns). For SSPC-SP12/NACE No.5, all surfaces to be coated shall be cleaned in accordance with WJ-2/NV2 standards. Pre-existing profile should be approximately 2 mils (50 microns). Remove all weld spatter. Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

Concrete and Masonry
For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 2-3. 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 Steel-Seam FT910. Primer required.

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 F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
SSPC-SP 13/Nace 6 Surface Preparation of Concrete.
ICRI No. 310.2R Concrete Surface Preparation.

Concrete, Immersion Service:
For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2R, CSP 2-3.

Surface Preparation Standards

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	-

APPLICATION CONDITIONS

Temperature (air, surface):

B62-V210 Hardeners	50°F (10°C) minimum, 110°F (43°C) maximum
B62V211 Hardener	40°F (4.5°C) minimum, 77°F (25°C) maximum
	At least 5°F (2.8°C) above dew point

Material should be 70°F (21°C) to 85°F (29°C) or optimal performance.

Relative humidity: 85% maximum

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reduction .....Not recommended

Clean Up .....MEK, R6K10 or R7K104 Reducer

Airless Spray
Unit.....74:1 Pump, minimum
Pressure.....6000 psi minimum
Hose.....3/8" ID
Tip .....019" - .021"
Filter.....30 mesh

In order to avoid blockage of spray equipment and hose, flush equipment with MEK, R6K10 or R7K104 Reducer at least once every 30 minutes when using the B62V210 Hardener and after each kit when using the Low Temperature Hardener, and before periods of extended downtime.

Plural Component Equipment .....Acceptable

Brush .....For stripe coating and repair only
Brush.....Nylon/Polyester or Natural Bristle

Roller .....For stripe coating and repair only
Cover .....3/8" woven with solvent resistant core

If specific application equipment is not listed above, equivalent equipment may be substituted.

continued on back

Protective & Marine Coatings

NSF Certified to NSF/ANSI 61

DURA-PLATE® UHS

WITH OPTI-CHECK OAP TECHNOLOGY

PART A	B62-210	SERIES
PART A	B62W211	WHITE OAP (NSF)
PART B	B62V210	STANDARD HARDENER (NSF)
PART B	B62V211	LOW TEMP HARDENER (NSF)

Revised: December 3, 2014

APPLICATION BULLETIN

TRM.35

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mixing Instructions: Mix contents of each component thoroughly using low speed power agitation. Make certain no pigment remains on the bottom or the sides of the can. Then combine four parts by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation.

To ensure that no unmixed material remains on the sides or bottom of the cans after mixing, visually observe the container by pouring the material into a separate container.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat*:

	1 coat system Min.	1 coat system Max.	2 coat system Min.	2 coat system Max.
Wet mils (microns)	**18.0** 450	**22.0** 550	**10.0** 250	**12.0** 300
Dry mils (microns)	**18.0** 450	**22.0** 550	**10.0** 250	**12.0** 300
Total mils (microns)	**18.0** 450	**22.0** 550	**20.0** 500	**24.0** 600
~Coverage sq ft/gal (m^2/L)	**72** 1.76	**90** 2.2	**130** 3.18	**160** 3.9
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil/25 micron dft	**1568** (38.4)			

* See NSF Systems on next page.

NOTE: Brush or roll application recommended for stripe coating and repair only. Standard hardener preferred for brush & roll due to pot life.

Drying Schedule @ 10.0-22.0 mils wet (250-550 microns):

With B62-V210	@ 55°F/13°C *50% RH*	@ 77°F/25°C	@ 100°F/38°C
To touch:	12 hours	5 hours	3 hours
To handle:	48 hours	14 hours	8 hours
To recoat:			
minimum:	48 hours	14 hours	8 hours
maximum:	21 days	14 days	14 days
Cure to service:	10 days	4 days	24 hours
Heat Cure:	8 hours @ ambient, then 16 hrs @ 140°F (60°C)*		

*Not NSF Approved. See Tips Section.

Pot Life*:	30-45 minutes	30-45 minutes	20-30 minutes
*Dependent upon temperature and mass			
Sweat-in-time:	15 minutes	None	None

With B62V211	@ 40°F/4.5°C	@ 55°F/13°C *50% RH*	@ 77°F/25°C
To touch:	24 hours	5 hours	3 hours
To handle:	48 hours	24 hours	8 hours
To recoat:			
minimum:	48 hours	24 hours	8 hours
maximum:	30 days	21 days	14 days
Cure to service:	7 days	5 days	3 days
Heat Cure:	8 hours @ ambient, then 16 hrs @ 140°F (60°C)*		

Material should be at least 50°F (10°C) for optimal performance.

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

Sterilize and rinse per AWWA C652.

*Not NSF Approved. See Tips Section.

Pot Life*:	20 minutes	20 minutes	10 minutes
*Dependent upon temperature and mass			
Sweat-in-Time:	5 minutes	None	None

Note: Recommended application procedure direct to steel: Apply a 5.0-6.0 mil (125-150 micron) coat to the substrate. Allow material to "wet" the surface. Then apply additional material, to bring total film thickness to the recommended range.

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with MEK, R6K10. Clean tools immediately after use with MEK, R6K10. Follow manufacturer's safety recommendations when using any solvent.

PERFORMANCE TIPS

Repair of Pitted Tank Bottoms
Extensive, deep pitting:
Options:
Option 1 ....Apply a full wet coat, by spray application, of Dura-Plate UHS Primer. Follow with rubber squeegee to work material into and fill the pitted areas. After recommended drying time, apply a full coat of Dura-Plate UHS at recommended film thickness.
Option 2 ....Apply Dura-Plate Laminant Resin with 1½ oz fiberglass mat over the pitted areas. After recommended drying time, apply a full coat of Dura-Plate UHS at recommended film thickness.
Option 3 ....Weld new steel plates, or use puddle welds, as required to repair pitted areas. Coat areas as recommended.
Shallow pitting, isolated areas:
Options:
Option 1 ....Same as number 1 above.
Option 2 ....Apply Steel-Seam FT910 as required to fill the pitted areas. Coat areas as recommended.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross-coat spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.
No reduction of material is recommended as this can affect film build, appearance, and adhesion.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

In order to avoid blockage of spray equipment and hose, flush equipment with MEK, R6K10 or R7K104 Reducer at least once every 30 minutes when using the B62V210 Hardener and after each kit when using the Low Temperature Hardener, and before periods of extended downtime.

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

May be applied up to 50.0-60.0 mils (1250-1500 microns) dft in one coat if required.

When using the B62L210 Primer containing the OAP fluorescent pigment, make sure a non-containing OAP fluorescent pigment Topcoat is used.

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

Heat curing is not acceptable for NSF approval.

Guidance on techniques and required equipment to inspect a coating system incorporating Opti-Check OAP Technology can be found in SSPC-TU 11.

Refer to Product Information sheet for additional performance characteristics and properties.

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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WARRANTY

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Protective & Marine Coatings

ENVIROLASTIC® 940 DTM
POLYASPARTIC URETHANE

PART A	B65-940	SERIES
PART B	B65V940	HARDENER

Revised: February 6, 2014

PRODUCT INFORMATION

5.52

PRODUCT DESCRIPTION

ENVIROLASTIC 940 DTM is a single coat, direct-to-metal urethane finish. It is a fast dry, polyaspartic urethane formulated to provide high build, high performance protection and gloss and color retention through airless spray.

- Single coat application
- Direct to metal
- Corrosion resistant
- High film build in one coat
- Cures quickly to improve productivity
- No gassing
- Outstanding application properties

PRODUCT CHARACTERISTICS

Finish:	Gloss
Color:	Wide range of colors possible
Volume Solids:	68% ± 2%, mixed, may vary by color
Weight Solids:	80% ± 2%, mixed, may vary by color
VOC (EPA Method 24):	265 g/L; 2.21 lb/gal, mixed, may vary by color
Mix Ratio:	2:1 by volume

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**9.0** (225)	**13.0** (325)
Dry mils (microns)	**6.0** (150)	**9.0** (225)
~Coverage sq ft/gal (m^2/L)	**121** (3.0)	**182** (4.5)
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**1089** (26.7)	

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 9.0 mils wet (225 microns):

	@ 35°F/1.6°C	@ 50°F/10°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
To touch:	5 hours	3 hours	1 hour	30 minutes
To handle:	16 hours	7 hours	2 hours	1 hour
To recoat:				
minimum:	16 hours	7 hours	2 hours	1 hour
maximum:	3 months	3 months	3 months	45 days
To cure:	7 days	7 days	4 days	2 days
Pot Life:	4 hours	3 hours	2 hours	30 minutes
Sweat-in-Time:	None required			

If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.

Shelf Life:	Part A - 24 months, unopened Part B - 24 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point:	57°F (14°C), mixed (Seta Flash)
Reducer/Clean Up:	
Below 80°F (27°C):	MEK, R6K10
Above 80°F (27°C):	Reducer R7K216
Brush / Roll:	Reducer R7K216

RECOMMENDED USES

- Direct to properly prepared steel and galvanizing in industrial environments
- Replaces conventional epoxy/urethane systems
- Ideal for maintenance or new construction applications
- Suitable for use in USDA inspected facilities
- Acceptable for use in high performance architectural applications
- Suitable for use in the Mining & Minerals Industry
- Not recommended for electrostatic spray or air-assisted airless spray

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP10/NACE 2

System Tested*:

1 ct. Envirolastic 940 DTM @ 6.0-9.0 mils (150-225 microns) dft

*unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	120 mg loss
Adhesion	ASTM D4541	1400 psi
Direct Impact Resistance	ASTM G14	60 in lb
Dry Heat Resistance	ASTM D2485	200°F (93°C)
Flexibility	ASTM D522, 180° bend, 3/4" mandrel	Passes
Pencil Hardness	ASTM D3363	H

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Protective & Marine Coatings

ENVIROLASTIC® 940 DTM
POLYASPARTIC URETHANE

PART A	B65-940	SERIES
PART B	B65V940	HARDENER

Revised: February 6, 2014

PRODUCT INFORMATION

5.52

RECOMMENDED SYSTEMS

	Dry Film Thickness / ct. Mils	(Microns)
Steel:		
1 ct. Envirolastic 940 DTM	6.0-9.0	(150-225)
Galvanizing:		
1 ct. DTM Wash Primer	0.7-1.3	(18-32)
1 ct. Envirolastic 940 DTM	6.0-9.0	(150-225)
Galvanizing:		
1 ct. Envirolastic 940 DTM	6.0-9.0	(150-225)
Steel, if primer is required:		
1 ct. Corothane I GalvaPac Zinc Primer	3.0-4.0*	(75-100)
1 ct. Envirolastic 940 DTM	6.0-9.0	(150-225)
Previously Painted Surfaces:		
1 ct. Envirolastic 940	4.0-7.0	(100-200)
Check Compatibility		

* other acceptable primers
- Fast Clad Zinc HS
- Macropoxy 646 Epoxy
- Steel Spec Epoxy Primer
- Zinc Clad III HS
- Zinc Clad IV

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

The systems listed above are representative of the product's use, other systems may be appropriate.

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Minimum recommended surface preparation:

Iron & Steel: SSPC-SP6/NACE 3, 2 mil (50 micron) profile

Galvanizing: SSPC-SP16, 2 mil (50 micron) profile

Surface Preparation Standards

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	-
Hand Tool Cleaning Pitted & Rusted	D St 2	D St 2	SP 2	-
Power Tool Cleaning Rusted	C St 3	C St 3	SP 3	-
Power Tool Cleaning Pitted & Rusted	D St 3	D St 3	SP 3	-

TINTING

Tint with Maxitoner colorants only into Part A Ultra Deep at 100% tint strength and 150% tint strength for Extra White. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

APPLICATION CONDITIONS

Temperature: 35°F (1.6°C) minimum, 120°F (49°C) maximum
(air, surface, and material)
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:

Part A: 2 qts. (1.9L) gallon can
Part B: 1 qt. (0.95L) quart can

Part A: 3 gallon (12.04L) pail
Part B: short filled 2 gallon (6.28L) pail

Weight: 11.4 ± 0.2 lb/gal ; 1.4 Kg/L
mixed, may vary with color

SAFETY PRECAUTIONS

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WARRANTY

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Protective & Marine Coatings

ENVIROLASTIC® 940 DTM
POLYASPARTIC URETHANE

PART A	B65-940	SERIES
PART B	B65V940	HARDENER

Revised: February 6, 2014

APPLICATION BULLETIN

5.52

SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Iron & Steel
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3. For better performance, use Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

Aluminum
Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1. Primer required.

Galvanized Steel
Surface Preparation Specification SSPC-SP 16 must be followed obtaining a surface profile of minimum 2.0 mils (50 microns).

Previously Painted Surfaces
If in sound condition, clean the surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if this product attacks the previous finish, removal of the previous coating may be necessary. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

Surface Preparation Standards

	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	-

APPLICATION CONDITIONS

Temperature:	35°F (1.6°C) minimum, 120°F (49°C) maximum (air, surface, and material) At least 5°F (2.8°C) above dew point
Relative humidity:	85% maximum

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer/Clean Up
- Above 80°F.....Reducer R7K216
- Below 80°F .....MEK, R6K10
- Brush and roll.....Reducer R7K216

Airless Spray
- Pump.....30:1
- Pressure.....2800 - 3000 psi
- Hose.....3/8" ID
- Tip .....017" - .021"
- Filter.....60 mesh
- Reduction.....As needed up to 5% by volume

Conventional Spray
- Gun .....Binks 95
- Cap 63P
- Fluid Tip 67
- Atomization Pressure.....50-70 psi
- Fluid Pressure.....20-25 psi
- Reduction.....As needed, up to 10% by volume

Brush (small areas only)
- Brush.....Natural bristle
- Reduction.....As needed up to 5% by volume

Roller (small areas only)
- Cover .....1/4" woven with solvent resistant core
- Reduction.....As needed up to 5% by volume

If specific application equipment is not listed above, equivalent equipment may be substituted.

continued on back

Protective & Marine Coatings

ENVIROLASTIC® 940 DTM
POLYASPARTIC URETHANE

PART A	B65-940	SERIES
PART B	B65V940	HARDENER

Revised: February 6, 2014

APPLICATION BULLETIN

5.52

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine 2 parts by volume of Part A with 1 part by volume of Part B. Thoroughly agitate the mixture with power agitation.

If reducer solvent is used, add only after both components have been thoroughly mixed.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**9.0** (225)	**13.0** (325)
Dry mils (microns)	**6.0** (150)	**9.0** (225)
~Coverage sq ft/gal (m^2/L)	**121** (3.0)	**182** (4.5)
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**1089** (26.7)	

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 9.0 mils wet (225 microns):

	@ 35°F/1.6°C	@ 50°F/10°C	@ 77°F/25°C *50% RH*	@ 120°F/49°C
To touch:	5 hours	3 hours	1 hour	30 minutes
To handle:	16 hours	7 hours	2 hours	1 hour
To recoat:				
minimum:	16 hours	7 hours	2 hours	1 hour
maximum:	3 months	3 months	3 months	45 days
To cure:	7 days	7 days	4 days	2 days
Pot Life:	4 hours	3 hours	2 hours	30 minutes
Sweat-in-Time:	None required			

If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with MEK, R6K10. Clean tools immediately after use with MEK, R6K10. Follow manufacturer's safety recommendations when using any solvent.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

PERFORMANCE TIPS

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

Do not use Quik-Thane Urethane Accelerator.

Do not apply the material beyond recommended pot life.

Do not mix previously catalyzed material with new.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with MEK, R6K10.

Mixed coating is sensitive to water. Use water traps in all air lines. Moisture contact can reduce pot life and affect gloss and color.

Refer to Product Information sheet for additional performance characteristics and properties.

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

4 – DETAILED TECHNICAL DOCUMENTATION

4.3 – SHOP DRAWINGS

4.3.2 – SLUDGE TANK – RX75-2

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Project name:	AMARUQ
Project#:	5000218009
Document #:	SPK_0004_RX
by:	LJ
chkd:	GP
appvd:	CB

SUBMITTAL PACKAGE

SLUDGE TANKS RX75-2

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Project name: AMARUQ

Project#: 5000218009

Document #: SPK_0004_RX

by: LJ

chkd: GP

appvd: CB

SLUDGE TANKS RX75-2

PROCESS DATASHEET

OIM manual section: 4.3.2.1

REFER TO 5000218009_PSDS_0002_RX_VWT

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Project name: AMARUQ

Project#: 5000218009

Document #: SPK_0004_RX

by: LJ

chkd: GP

appvd: CB

SLUDGE TANKS RX75-2

GENERAL ARRANGEMENT DRAWING

OIM manual section: 4.3.2.2

REFER TO 5000218009_GA_0002_RX75-2_VWT

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Project name: AMARUQ

Project#: 5000218009

Document #: SPK_0004_RX

by: LJ

chkd: GP

appvd: CB

SLUDGE TANKS RX75-2

MIXER

OIM manual section: 4.3.2.3

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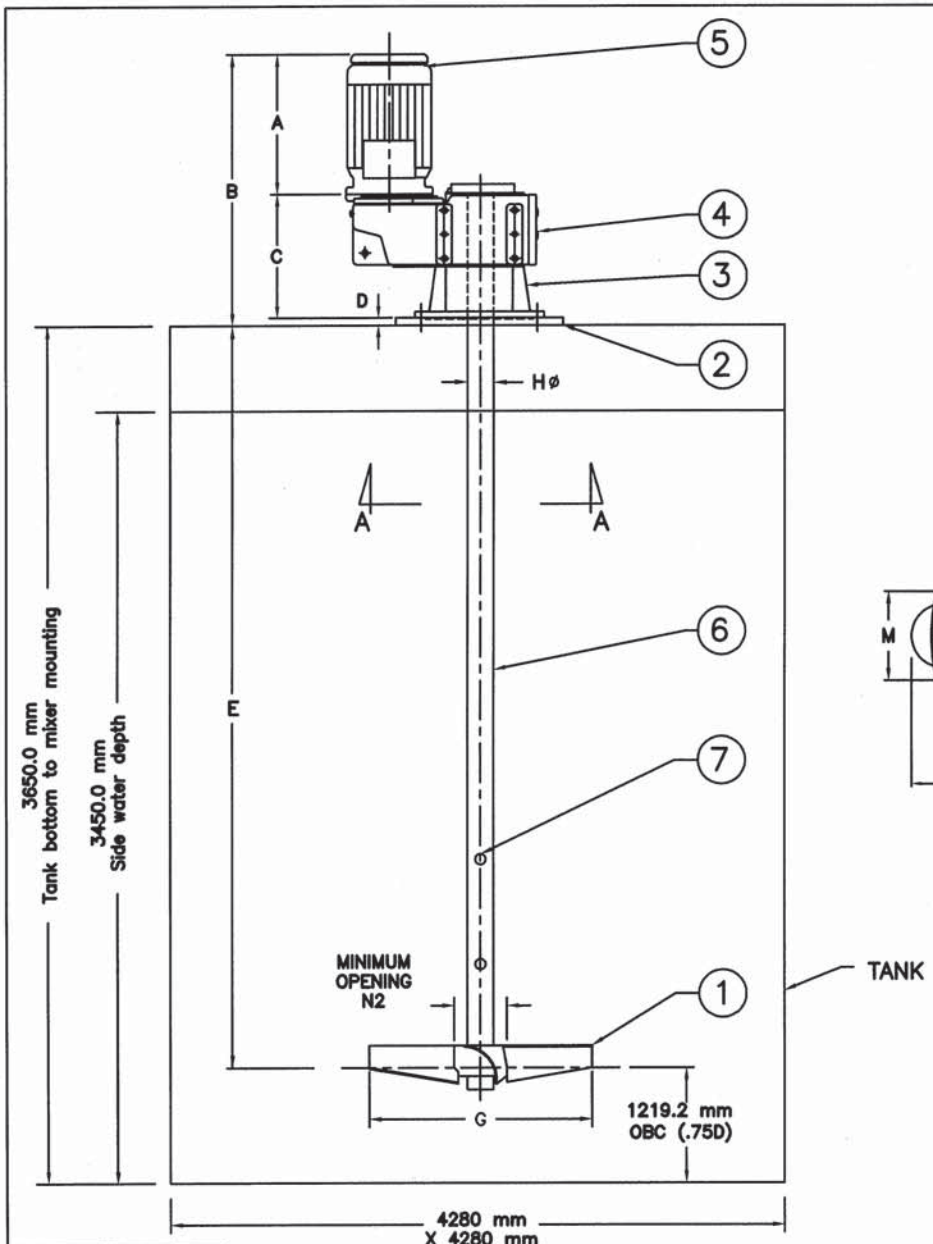

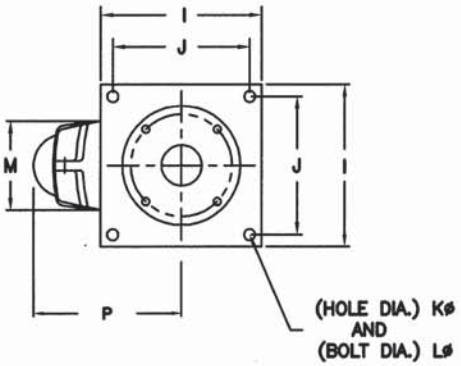

"A–A"

ITEM	DESCRIPTION	MATERIAL
1	Envirofoil Impeller (F–4) 2438.4 mm (96.0")ø ● 22.0 °	304L
2	Base 533.4 mm x 533.4 mm (21.0" x 21.0")	Steel
3	Pedestal c/w dry well (dry well)	
4	NORD reducer 21.72 RPM	
5	NORD 5.0 Hp motor, premium efficiency, 575/3/60, TEFC	
6	Shaft: (1) section 2430.8 mm (95.7") ● 3.0"ø	304L
7	Three pos'n adjustment: 1/2D, 3/4D and 1.0D	

APPL'N: SLUDGE (QTY 2)
MELANGEURS MIX–TECH
MODEL: EVGX6–5.0
3.73 kW ● 21.72 RPM
S/N 04865–4, 5
Sludge tank # 1
Rotation: Clockwise
Thrust: Down
Tag #: M4–011
Reactor # 2
Rotation: Clockwise
Thrust: Down
Tag #: M4–012

Dimensions: Inches

MOD.:	A	B	C	D	E	E2	F	Gø	Hø SHAFT	I	J	Kø	Lø	M	N2	P
EVGX6	12.85	29.8	16.05	.875	95.7	–	–	96.0	3.0	21.0	18.0	1.0	.875	13.8	16.0	16.02

Dimensions: mm

MOD.:	A	B	C	D	E	E2	F	Gø	Hø SHAFT	I	J	Kø	Lø	M	N2	P
EVGX6	326.4	756.9	407.7	22.2	2430.8	–	–	2438.4	76.2	533.4	457.2	25.4	22.2	350.5	406.4	407.0

NO	DATE	REVISION	P/B

PROJET/PROJECT
AGNICO EAGLE – AMARUK

ENVIREQUIP WTEM INC.
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Dorval, QC H9S 2A8
Montreal Tel: (514) 338-1043
RR1 (21494 Little Russels Rd.)
Glen Robertson, Ont K0B 1H0
Ontario Tel: (613) 874-2616
Fax: (613) 874-2629
E-mail: enviregp@glen-net.ca

TITRE/TITLE
"MIX–TECH" Mixers
Veolia Water Technologies
EVGX SERIES

DESSINÉ PAR: DRAWN BY: PJ	DATE March 8, 2018
DESS. NO: DWG NO: EVGX	ÉCH./SCALE N.T.S
VÉRIFIÉ PAR: CHECKED BY: PJ	PROJ.NO: 04865
APPROUVÉ PAR: APPROVED BY: RJ	REV. 00

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ENVIREQUIP

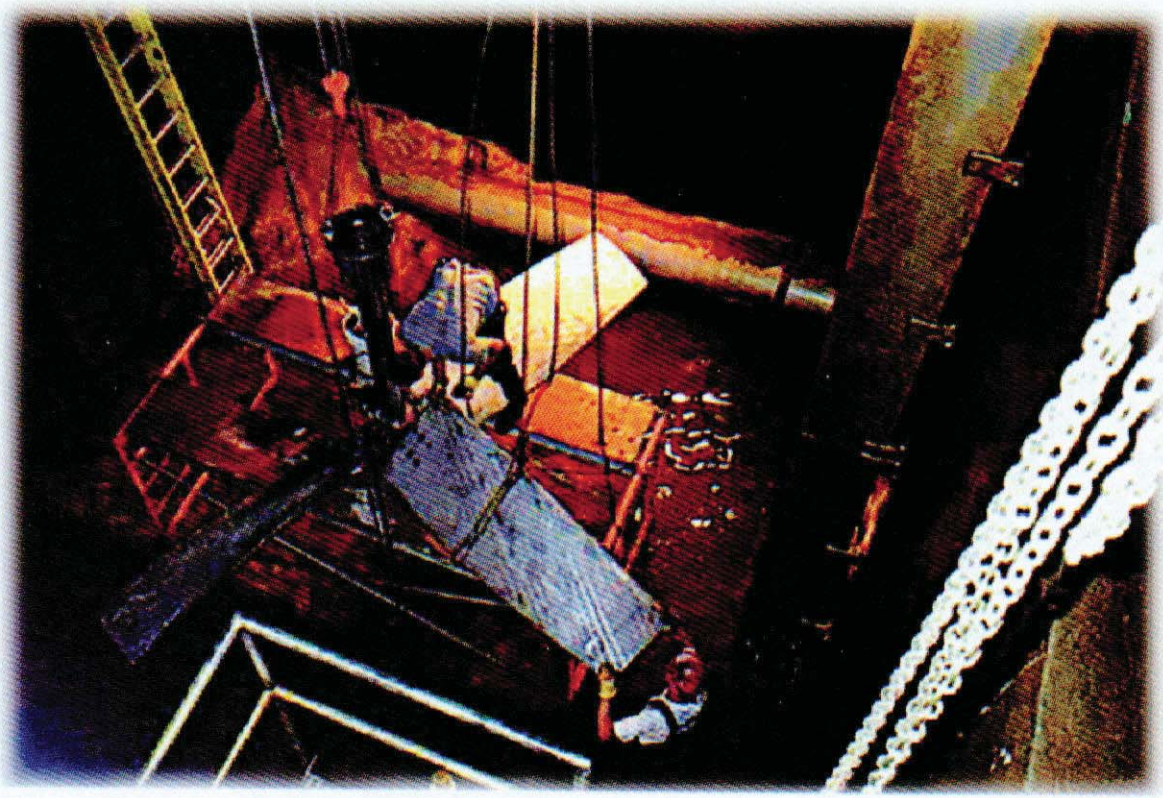
W.T.E.M. INC.

MIX-TECH

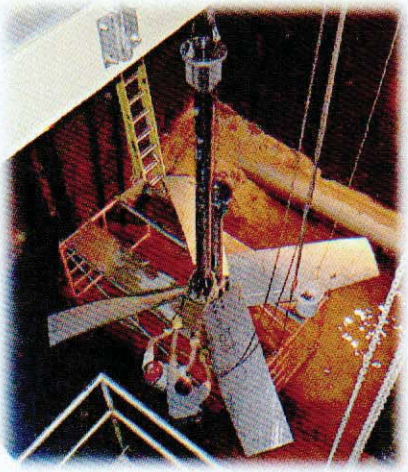
DYNAMIC MIXERS

EVG & EVG-FP SERIES

1/4 TO 200 HP



MIX-TECH FEATURES:



- Large service factors on gear drives - minimum 2.5.
- Shaft stress to 9000 psi maximum.
- Impeller / Hub / Coupling 6000 psi maximum.
- All drives are capable of reverse rotation.
- Optional pedestal with shaft catcher design, that allows removal of the gear drive without disturbing the wet end.
- "FP" Option: The reducer is totally isolated from the random hydraulic loads imposed by the shaft & impeller assembly.
- Large shaft capability operating at 65% of the shaft's 1st Harmonic frequency or Critical Speed.
- Mounting options: Steel base, pedestals and custom.
- Seal options: HPLRSB, LPSB, Lip seals, Single, Double, Dry-Running or Cartridge seals.
- Motor options: Nord integral Standard; Nema motors, hydraulic & pneumatic motors also available.
- Full range of impellers including **ENVIROFOIL**.

MIX-TECH... GOOD PEOPLE TO MIX WITH

ENVIREQUIP

W.T.E.M. INC.

EVG & EVG-FP SERIES
1/4 TO 200HP

MIX-TECH
DYNAMIC MIXERS

Isolating the gear drive 100% from the random hydraulic loads generated by the mixer's shaft and impeller assembly.

FEATURES:

- Elegant parallel design shaft-helical gears.
- AGMA 13 on high speed gears and AGMA 11 minimum for other gears.
- Large service factors - minimum 2,5.
- Oversized roller bearings B10 life, 100,000 hours minimum.
- Double output shaft seals and leakproof dry-well design option.
- Available with hollow quill output shaft for easy maintenance.

MIX-TECH... GOOD PEOPLE TO MIX WITH