X²Tank&PipelineProtect Version: VEC-W

Selection & Specification Data

Generic Type
Water resistant epoxy polymerized with a polyamine type curing agent and dense ceramic particles.

Description
A real Supercoating with an outstanding performance. Ceramic flake-filled coating with dense cross-lining that exhibits excellent overall chemical resistance to a variety of aggressive chemicals. Excellent for use as a lining for tanks or pipes were where pure hot drinking water, waste water or oil/water with abrasive conditions exist. Perfect for many substrate such as: Metall, Concrete, GFK or CFK. Great Primer for paint systems in heavy industries or infrastructure projects !

Features
- Excellent resistance to deionised or demineralised water (170°C short time)
- Certified for Drinking Water!
- Free of Solvents! (VOC)
- Excellent abrasion resistance
  27 milligram average loss per 1000 cycles
- Max.18000 h Corrosion Resistance
- Excellent thermal shock resistance
- Easy to be topcoated
- Chemical Resistance: A pressurized Atlas cell test was conducted at a pressure of 500 psi at 200°F for 110 days with no effect on the coating. A non pressurized Atlas cell with DI water at 212°F was tested with no effect on the coating for one year.

Surface Hardness:Konig Pendulum Hardness of 104 Seconds (ASTM D4366-84)

Color light Gray

Finish matt

Primers Self-priming

Corrosion Protection:
18000h at 1000 microns
10000h at 600 microns

Dry Film Thickness
1 coat system: 400- 700 microns
2 coat system: 800-1400 microns

As Primer and Intermediate:
1 coat system: 100 – 500 microns

Do not exceed 700 microns per coat

Solids Content By Volume: 100% ± 2%

Theoretical Coverage Rate
0,77 kg at 500 microns
Allow for loss in mixing and application

VOC Values
No VOC

Dry Temp. Resistance
Continuous: 218°C
Non-Continuous: 232°C)
Discoloration and loss of gloss is observed above 93°C

TopCoats
Polyurethane
Siloxan
Acrylics
Silicon Alkyds

Temp. Resistance Immersion
Water: 170°C short term
Drinking water 85°C
Crude oil 93°

Limitations
Epoxies lose gloss, discolor and eventually chalk in sunlight exposure. This coating commonly develops an *amineblush* during cure. While this condition will not adversely affect performance of the coating, this blush must be removed before applying additional coats and may require removal before placing into service.

Substrates & Surface Preparation

General
Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating. Contaminated grid shall not be used. The blasting media used shall be a natural abrasive, or steel grit or slag grit similar to or equal to Black Beauty. Use sharp anchor pattern, no evidence of polished surface allowed. Remove all traces of grit. Avoid contamination of the surface by fingerprints or dirt on workers clothes.

Surface temperature shall be min. 3°C above dew point. Surface shall be coated same day as prepared

Steel
Immersion**:** SSPC-SP 5 (SA 2,5)
Non Immersion: SSPC-SP6 (SA 3,0)
Surface Profile 50-80 micron

Stainless Steel
Immersion**:** SSPC-SP 5 (SA 2,5)
Non Immersion: SSPC-SP6 (SA 3,0)
Surface Profile 50-80 micron

Aluminium
Surface Profile 50-80 micron
Use Scandex X²AluPrimer 30 micron

Concrete
Concrete must be below 5% humidity! Prepare surfaces by sandblasting. Surface Cleaning of Concrete required. Preparation with X² ConcretePrimer strongly recommended!

Application Equipment

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

General Guidelines:

Spray Application (General)
Recommended for application by single or plural component airless spray. This is a high solids coating and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved. The following spray equipment has been found suitable and is available from anufacturers such as Binks, DeVilbiss and Graco.

Conventional Spray
Not recommended

Airless Spray
Pump Ratio: 1:68 (min.)*
GPM Output: 3.0 (min.)
Material Hose: ¾ " I.D. (min.)
Tip Size: .021"-.026"
Output: 180 - 200 bar
Filter Size: 60 mesh

*Teflon packings are recommended and available from the pump manufacturer. Contact Scandex Technical Service for plural component equipment recommendations.

Brush & Roller (General)
Not recommended for tank lining applications except when striping welds.
Brush For touch up and limited areas only.
Roller not recommended

Mixing & Thinning

Mixing
Power mix component A for 4 min.
Than mix components A+B for 2 min.
DO NOT MIX PARTIAL KITS.

Pot Life
30 minuts at 75°F (24°C). Pot life ends when coating loses body and begins to sag. Pot life times will be less at higher temperatures.

Cleanup & Safety

Cleanup
Use Scandex Thinner 2. In case of spillage, absorb and dispose of in accordance with local applicable regulations.

Safety
Read and follow all caution statements on this product data sheet and on the MSDS for this product. Employ normal workmanlike safety precautions. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.

Ventilation
When used as a tank lining or in enclosed areas, thorough air circulation must be used during and after application
until the coating is cured. The ventilation system should be capable of preventing the vapour concentration from reaching the lower explosion limit for the solvents used. In addition to ensuring proper ventilation, appropriate respirators must be used by all application personnel.

Caution
Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	60°-85°F (16°-29°C)	60°-85°F (16°-29°C)	60°-90°F (16°-32°C)	0-80%
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	90°F (32°C)	125°F (52°C)	110°F (43°C)	90%

This product simply requires the substrate temperature to be 3° above the dew point. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion to the substrate. Special application techniques may be required above or below normal application conditions. To reduce outgassing when applying to concrete substrates, do not apply in direct sunlight or when surface temperatures are increasing. Best results are obtained when ambient and surface temperatures are decreasing or constant.

Curing Schedule

Curing will normally take place within 48 h at 21°C . Dry to touch 10 h, Recoat time min. 10h max. 28 h.
These times are based on a 500 micron dry film thickness. Higher film thicknesses, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure. Condensation on the surface or humidity above 25% during application and curing will result in a surface haze or blush. Any haze or blush must be removed by water washing before recoating. During high humidity conditions, it is recommended that the application be done while temperatures are increasing. If the maximum recoat time is exceeded, the surface must be washed with detergent and water, then abraded by sweep blasting prior to the application of additional coats. For force curing, contact Scandex Technical Service for specific requirements.

Packaging, Handling & Storage

Shipping Weight (Approximate)
16 kg and 27 kg Pail
Oter on request
Storage (General)
Store Indoors.
Storage Temperature & Humidity
4°- 30°C)
0-90% Relative Humidity
Shelf Life
Part A & B: 12 months if stored at 24C°