



# FX-644CR

## Chemically Resistant Sprayable Aromatic Polyurea

### DESCRIPTION:

**FX-644CR Chemically Resistant Sprayable Aromatic Polyurea** is a two component spray applied polyurea coating. It dries in seconds to provide the utmost in chemical and abrasion resistant surfaces for tough working conditions such as aggressive secondary containment. It has a higher cross-link density which provides improved performance over normal polyureas. Typically, working times are less than 20 seconds. This fast reaction requires a fast, efficient mixing technique so that the mixture can be applied within the short gel times. Impingement mixing from available two-component spray machinery is efficient and entirely adequate.

### ADVANTAGES:

- Fast Cure – Minimal downtime. May be walked on within 60 seconds.
- Excellent adhesion to a variety of substrates.
- 100% solids, no VOC, low odor.
- Seamless and waterproof
- Resistant to many chemicals
- Flexible: will bridge cracks
- High thermal stability at temperatures up to 350°F.
- Unlimited DFT in a single application.
- Cures from -20°F to 225°F.

### PHYSICAL PROPERTIES:

Finish	Semi-Gloss
Color	Gray, Black, Tan
Custom colors available upon request (It should be noted that aromatic polyureas such as <b>FX-644CR</b> may undergo a color change over time.)	
Volume Solids	100%
VOC	0
Mix Ratio	1A : 1B by volume 1.08/1.00 by weight
<u>Drying Properties @ 30 mils wet @ 73°F and 50% RH</u>	
Gel time, sec	5
To touch	3 minutes
To recoat	3 minutes minimum 24 hours maximum
Surface at 60 sec	Dry
<u>Cured Properties</u>	
Shore D Hardness	63
Tensile strength, psi	3900
Elongation, %	260
Tear strength, pli	580
Flexural modulus, psi	
@ 77°F	37,000
@ -20°F	59,200

Abrasion resistance, wt. loss, ASTM D 4060	
1000 g., 1000 rev. H-18 wheels	.264 g
MVT, perms at 30 dry mils	0.061
Water absorption, % wt. gain (immersion for 24 hrs. @ 25°C)	1.5
Adhesion, Elcometer	
Concrete, unprimed	300 psi
Concrete, primed	600 psi
Adhesion, steel	1100 psi

### SURFACE PREPARATION:

Contact Fox Industries, Inc. Technical Representative for detailed surface preparation guideline requirements.

Each individual application or installation is unique.  
General surface preparations guidelines:

#### Steel:

Immersion Service: Minimum SSPC-SP10, Near White blast cleaning.

Non-Immersion Service: Minimum SPC-SP10, Near White blast cleaning

#### Concrete:

Allow new concrete to cure 28 days. Abrasive blast all concrete and refer to SSPC-SP13/NACE 6 Standard. Concrete must be clean, dry and sound with a sufficient profile.

#### Galvanized and other substrates (Geotextile applications):

Surface preparation will vary depending on exposure. Consult with a Fox Industries Technical Representative for specific guidelines or instructions.

### APPLICATION:

Specialized plural component spray equipment is needed. Please consult with Fox Industries for proper equipment procedures and information.

Use only heated plural component equipment capable of producing 2000 to 3000 psi and 2 gallons per minute output consistency with approximate material heaters.

(OVER)

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PHONE 410-243-8856

TOLL FREE 888-760-0369

FAX 410-243-2701

Maintain temperature at a range of 140°F to 160°F.

A 50% overlay on each spray pass of the gun is recommended to avoid holidays, pinholes and achieve consistent film thicknesses.

A cross hatch spray pattern is strongly encouraged.

#### RECOMMENDED THICKNESS:

Normally used at film thickness of 60 mils or greater. However, thickness if desired, can be up to 120 mils. Recommendations will vary with substrates and service conditions.

#### PACKAGING:

**FX-644CR** is packaged in a 10 gallon or a 110 gallon unit.

#### SHELF LIFE:

Six months minimum when stored at 75°F and dry conditions.

#### STORAGE:

**FX-644CR** must be stored in a dry, well protected and suitable storage environment with temperatures over 65°F. Protect from freezing.

#### SAFETY:

Refer to MSDS sheet prior to use.

#### CAUTION:

Contains organic isocyanates MDI. Avoid breathing vapors. Avoid contact with skin and eyes. Do not ingest. Keep away from foodstuffs and wash thoroughly before smoking or eating. Should skin contact occur, wash skin well with soap and water. Should eye contact occur, flush thoroughly for at least 15 minutes with water. Get medical attention.



*Member, Polyurea Development Association*

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