

# X-Shield RG40 S

## Solvented roller grade UV resistant polyaspartic coating

30710518

### Product Description

X-Shield RG40 S is a two component aliphatic polyaspartic coating. It has excellent color stability and resistance to abrasion, weathering and a wide range of chemicals. It can be roller or spray applied on horizontal and vertical surfaces.

### Advantages

- Fast turn around
- Color and UV stable
- Hygienic seamless surface
- Excellent impact resistance
- Good chemical resistance
- Water resistant

### Uses

- Topcoat for any X-Shield polyurea or epoxy product
- Floors, internal and external
- Fountains and ponds
- Balconies and walkways
- Sport stadiums

### Laboratory Test Data

Property	Typical Results	Test Method
<b>Tensile strength</b>	2000psi (15MPa)	ASTM D412
<b>Elongation</b>	20%	ASTM D412
<b>Hardness (Shore D)</b>	56	ASTM D2240
<b>Adhesion to primed concrete</b>	360psi (2.5MPa)	ASTM D4541

The above results were obtained on 7 day old samples cured at 95F (35C).

### Chemical Resistance

Test method ASTM D3912 (12 month exposure)

<b>Diesel Fuel</b>	No visible damage
<b>H<sub>2</sub>SO<sub>4</sub> (25%)</b>	Slight surface change, no hardness loss
<b>HCl (10%)</b>	No visible damage
<b>Acetic Acid (10%)</b>	No visible damage
<b>Chlorine 20ppm</b>	No visible damage
<b>Bromine 50ppm</b>	No visible damage
<b>Household Bleach</b>	No visible damage

### Volatile Organic Content

VOC ≤ 325 g/L

### Application Properties

<b>Application temperature (Ambient)</b>	-20 to 120F (-29 to 49C)
<b>Service temperature (Ambient)</b>	-20 to 150F (-29 to 66C)
<b>Mix ratio</b>	4:1
<b>Pot life</b>	1 hour
<b>Tack free time</b>	2 to 3 hours
<b>Recoat time</b>	8 to 10 hours
<b>Volume solids</b>	50%
<b>Minimum thickness wft</b>	4mils (0.1mm) per coat
<b>Maximum thickness wft</b>	8mils (0.2mm) per coat

### Color

Grey, white and clear. Other colors available subject to minimum order quantities

### Coverage

200ft<sup>2</sup> per gallon (5m<sup>2</sup>/L) at 8mils (0.2mm) thickness.

### Packaging

2 gallon (7.6L) and 5 gallon (18.9L) kits.

### Shelf Life

12 months when stored unopened below 77F (25C) under shade in a dry environment.

### Installation Guidelines

X-Shield RG40 S should be applied by experienced coating crews. X-Calibur provides detailed method statements on all its products for use in various applications. These must be referred to prior to starting work. The information below is a summary intended for guidance only.

### Surface Preparation Concrete

The surface being coated must be fully cured 28 days, structurally sound (200psi or greater according to ASTM D4541), clean (ASTM D4258), and dry (less than 5%, ASTM D4263). It must have low moisture-vapor transmission (less than 3lbs/24 hr/1,000ft<sup>2</sup>, RMA Test Method). Profile surface according to ICRI Guide 03732 to a minimum of CSP 3 by abrasive blasting or hydro-blasting. Remove contaminants before blasting.

Fill all voids and cracks greater than 60mils (1.5mm) to achieve a uniform coating surface. Voids and cracks can be pre-filled with suitable repair materials.

### **Steel**

Steel surfaces must be cleaned before blasting (SSPC-SP1). Remove any sharp edges and other surface imperfections. Dry abrasive blast surface according to SSPC-SP-10/NACE No. 2 (0.003" profile). Remove any visible soluble salt contamination (less than 3µg/cm<sup>2</sup>, NACE 6G186, CHLOR\*RID). Apply coating only if steel surface temperature is 5F (-15C) above the dew point to avoid application over damp surfaces. Apply primer and coating within the same day and before the prepared steel surface is chemically contaminated or rusting reoccurs.

### **Priming**

Priming of concrete or steel substrates is required. Allow X-Prime SF to set up according to instructions.

### **Mixing**

Thoroughly mix each separate component (Part A and Part B) with a low-speed drill and clean mixing blade for a minimum of 2 minutes. Mix slowly to minimize the vortex and to prevent trapping air in Part B. Combine Part B and Part A in a mixing container. Thoroughly mix both parts with a slow-speed drill and mixing blade for a minimum of 2 minutes. Keep the lid on the mixing container to extend the pot life of the product.

### **Application**

X-Shield RG40 S has been specifically developed for use as a stand alone system or as a UV stable top coat for epoxies polyurethanes or polyurea's.

When used as a stand alone system apply by brush, 1/4" (6mm) short-nap mohair roller, or airless spray. Two 6mil (0.15mm) coats are normally required. Allow first coat to dry for a minimum of 45 minutes and a maximum of 3 hours before applying the finish coat. Clean up using acetone to clean spray equipment and parts. Cured material must be mechanically removed.

### **Recoating**

#### **Hot Spray Polyurea Coatings**

Apply X-Shield RG40 S within the first 12 hours of the polyurea base-coat application. After 12 hours, mechanically abrade the entire base-coat surface and clean with acetone. Allow to dry and apply X-Shield RG40 S within 1 hour.

#### **Polyurethane or Epoxy Coatings**

Overcoat with X-Shield RG40 S within the first 24 hours of application of the polyurethane or epoxy base coat. After 24 hours, mechanically abrade the entire surface of the coating and clean with acetone. Allow substrate to dry and apply X-Shield RG40 S within 1 hour.

### **Limitations**

Do not apply at thicknesses above 200 microns per coat  
Do not apply in rain or wet conditions, at temperatures below -10F (-12C), above 120F (49C) or within 5F (3C) of the dewpoint.

Avoid skin contact.

Do not discard into the water system.

Apply only on to slabs that have a waterproofing system installed in order to prevent blistering due to osmosis.

### **Health and Safety**

**This product is for industrial use only by trained operatives. It is potentially hazardous if not used correctly. Please refer to the Material Safety Data Sheet (MSDS) prior to the purchase and use of this product. The MSDS can be obtained via our website [www.x-calibur.us](http://www.x-calibur.us)**

### **Authorized Technical Specialist**

Please note that only X-Calibur Authorized Technical Specialists ('ATSS') are permitted to change any of the information in this data sheet or to provide written recommendations concerning the use of this product. Visit [www.x-calibur.us](http://www.x-calibur.us) for a full list of X-Calibur ATSS.

### **Datasheet Validity**

X-Calibur makes modifications to its product datasheets on a continuous basis. Please check the datasheet update section on [www.x-calibur.us](http://www.x-calibur.us) to ensure you have the latest version.

### **Warranties**

X-Calibur supplies products that comply with the properties shown on the current datasheets. In the unlikely event that products supplied are proved not to comply with these properties, then we will replace the non-compliant product or refund the purchase price. X-Calibur does not warrant or guarantee the installation of the products, as it does not have control over the installation or end use of the products. Any suspected defects must be reported to X-Calibur in writing within five working days of being detected. X-Calibur Construction Systems Inc. **makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties express or implied.** X-Calibur Construction Systems Inc. shall not be liable for damages of any sort including remote or consequential damages, down time, or delay.