

Color-Safe<sup>™</sup> is an Acrylic based resin system used for pavement area markings and anti-skid surfacing. It is a plural component, liquid applied Acrylic and catalyst, capable of full cure in a wide range of temperatures without requiring external heat sources. Color-Safe<sup>™</sup> is typically used for demarcation of crosswalks, bicycle paths, bus stops and other specially designated areas. It can also be used as a surface to enhance skid resistance on hazardous turns and other high accident areas on asphalt and concrete roadways. It can be applied using two different methods mixed resin/aggregate method or spray/broadcast aggregate method.

**Application Procedure**

Surface Preparation: All surfaces that are to receive Color-Safe<sup>™</sup> must be thoroughly clean, dry, and free of all dirt, grease, and other contaminants that might interfere with proper adhesion. Clean the pavement surface using high pressure water, compressed air, sand-blasting, shot-blasting, or mechanical abrasion. All damaged or deteriorated surfaces must be repaired before applying Color-Safe<sup>™</sup>. The surface should be visibly dry and the moisture content should be tested according to ASTM D4263 (modified to 2 hours). New asphalt shall have been placed for a minimum of 15 – 30 days prior to installation of Color-Safe<sup>™</sup> and surface oils should not be present. The temperature of the pavement and air should be between 40°F-100°F and 5°F above the Dew Point temperature. Relative humidity should be 75% RH maximum. For colder or warmer application temperatures contact a Transpo representative for recommendations on hardener mix ratios.

**Mixing and Application (Resin/Aggregate Method)**

Base Coat Application [For Concrete Applications ONLY]:

All areas to be coated with Color-Safe<sup>™</sup> should be masked prior to application. Mix the un-pigmented Color-Safe<sup>™</sup> Base Coat Resin and Hardener (two 30g packets per half gallon of un-pigmented resin) for approximately ½ minute and apply it to the surface that will receive the Color-Safe<sup>™</sup>. Base Coat can be applied using 1/4” nap rollers. Base Coat application rate should be approximately 60 square feet per gallon however coverage on rough or porous surfaces will be less. After the Base Coat is applied and before it cures remove all masking.

Mixing: Transpo Color-Safe<sup>™</sup> Pigmented Resin comes in three components (Color-Safe<sup>™</sup> resin, hardener, and supplied prepackaged aggregate). Thorough and complete mixing of these components with a drill mounted paddle mixer is vital for uniform curing and performance. Air/substrate temperature determines the amount of hardener used; refer to the table for the appropriate amount of hardener to be added to the Color-Safe<sup>™</sup> resin. Using clean, dry plastic buckets, add powder hardener to Color-Safe<sup>™</sup> resin and mix until dissolved (approximately ½ minute) and then add and thoroughly mix the pre-packaged aggregate. After mixing the Color-Safe<sup>™</sup> must be applied to the pavement immediately.

Application: Before mixing and applying the Color-Safe<sup>™</sup>/Aggregate apply the masking to the area to be coated. Pour the mixed material onto the pavement surface and spread evenly with 3/16” notched squeegees. The surface can be back rolled with 1/4” nap rollers to give a uniform even finish. After the application and before the material cures remove the masking. At the onset of rain, installation shall cease until the substrate is sufficiently dry to the satisfaction of the engineer. Application of markings\*\* must be completed before contamination of the substrate occurs.

**Hardener per 2 Gallons of Color-Safe<sup>™</sup> Resin**

Temp °F(°C)	Weight %	Grams	120g Packets
40-59 (0-15)	3	360	3
60-89 (15-32)	2	240	2
90-104 (32-43)	1	120	1

## Mixing and Application (Spray/Aggregate Broadcast Method)

**Base Coat/Aggregate Application:** All areas to be coated with Color-Safe™ should be masked prior to application. Mix the Color-Safe™ resin and hardener for approximately ½ minute. Note that the Color-Safe™ resin and hardener are identical for both Base Coat and top coat applications. Refer to the table for the appropriate hardener/resin mixing ratios. Base Coat can be applied using high pressure airless spray equipment. Base Coat application rate should be approx 60 square feet per gallon however coverage on rough or porous surfaces will be less. Under compacted asphalt will absorb the Base Coat and coverage could be 40 square feet per gallon or less. Immediately after Base Coat application and while it is still wet broadcast the supplied aggregate onto the surface making sure all primed areas are covered with aggregate. After the Base Coat/aggregate is applied and before it cures remove all masking.

**Mixing:** Transpo Color-Safe™ resin comes in two components (Color-Safe™ resin and hardener). Thorough and complete mixing of these components is vital for uniform curing and performance. Air/substrate temperature determines the amount of powder hardener required; refer to the table for the appropriate amount of hardener to be added to the Color-Safe™ resin. Using clean, dry plastic buckets, add powder hardener to Color-Safe™ resin and mix until dissolved (approximately ½ minute). A drill-mounted paddle mixer should be used for proper mixing.

**Application:** Before applying the Color-Safe™ top coat remove all un-bonded aggregate from the primed surface using brooms or dry compressed air. Reapply the masking in the area to be coated. Mixed Color-Safe™ resin can be applied using high pressure airless spray equipment. Make sure that all of the broadcast aggregate is covered with the Color-Safe™ resin; application rate should be approximately 50 square feet per gallon. The surface can be back rolled with ¼” nap rollers to give a uniform even finish. After the Color-Safe™ is applied and before it cures remove all masking. At the onset of rain, installation shall cease until the substrate is sufficiently dry to the satisfaction of the engineer. Application of markings\*\* must be completed before contamination of the substrate occurs.

### Hardener per 1 Gallon of COLOR-SAFE™ Resin

Temp °F(°C)	Weight %	Grams	30 g Packets
40-59 (4-15)	1.5	180	6
60-89 (15-32)	1	120	4
90-104 (32-40)	.5	60	1

**\*\*Before applying any line striping or symbols; confirm compatibility of materials with manufacturer\*\***

Color-Safe™ may be used for application of line striping and symbols

### Properties\*

Property	Unit of Measure	Test
<b>Neat Resin</b>		
Elongation	70% min	ASTM D638 Type I
Hardness	15 – 20 Shore D	ASTM D2240
Water Absorption	0.25% max	ASTM D570
Pot Life	15 minutes @ 72°F (22°C)	AASHTO T237
Flash Point	50°F (10°C)	ASTM D1310
Solids Content	99%	ASTM D1644
Skid Resistant	45 minimum	ASTM E274
<b>Aggregate</b>		
Specific Gravity	2.65	ASTM C128
Hardness	7.0	Mohs Scale

\*To be used as general guidelines only

**Storage**

Materials shall be kept in dry protected areas between 40°F – 80°F out of direct sunlight, protected from open flame. Hardener component shall be stored separately from other materials. Manufacturer's specific label instructions and prudent safety practices for storage and handling shall be followed at all times. Materials shall be suitable for use for six months after the date of receipt when stored in accordance with the manufacturer's instructions.

**Caution**

The binder shall be 100% reactive, solvent-free, acrylic vehicle. Blends with other resins or liquid vehicles shall not be permitted. Coarse aggregate shall be part of the formulation to provide for skid resistance.

**Warranty**

The following warranty is made in lieu of all other warranties, either expressed or implied. This product is manufactured of select raw materials by skilled technicians. Neither seller nor manufacturer has any knowledge or control concerning the purchaser's use of the product and no warranty is made as to the result of any use. The only obligation of either seller or manufacturer shall be to replace any quantity of this product that proves to be defective. Neither seller nor manufacturer assumes any liability for injury, loss, or damage resulting from use of this product.

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