

## Cross/FIRE® IP Performance Urethane Single Stage National Rule Compliance Option

### PRODUCT DATA SHEET

#### PRODUCT DESCRIPTION

Cross/FIRE® IP Performance Urethane Single Stage is a fast drying, cost effective urethane enamel single stage designed for overall refinishing of thousands of OEM colors. This improved technology allows for easy application and enhanced metallic control, which reduce the amount of time needed for application and drying cycles. Cross/FIRE® IP Performance Urethane Single Stage is specifically designed for overall single stage refinishers that require both high performance and productivity.

#### SUITABLE SUBSTRATES



- OEM Enamels
- Aged Refinishes
- Cross/FIRE® Undercoats

∅ **Note:** *Only Cross/FIRE® primer surfacers & sealers should be used in order to ensure optimum performance.*

#### SURFACE PREPARATION



**Bare Metal Substrates:**

- Wash surface with a mild detergent in hot water. Rinse well and wipe dry with a clean cloth.
- Solvent clean with the appropriate Surface Cleaner and wipe dry with a clean cloth.
- For best corrosion protection, prime with Cross/FIRE® Etch Primer and recoat with Cross/FIRE® Undercoats.
- If directly top coating over primer surfacer, final sand with P600 – P800 sandpaper. When sealing, final sand repair area with P400 – P600 grit sandpaper.

∅ **Note:** *Check all local regulations regarding the use of solvent cleaners before use.*

#### MIXING RATIO



- Stir or shake Cross/FIRE® IP intermix color thoroughly before mixing.
- Mix by volume, 4 parts Cross/FIRE® IP intermix color with 2 parts Cross/FIRE® Reducer and 1 part CROSSFIRE® Hardener, stir thoroughly.



4 Parts  
Cross/FIRE® IP  
Urethane Single  
Stage

+



2 Part  
Cross/FIRE®  
Reducer  
CR733- CR736\*

+



1 Part  
Cross/FIRE®  
Hardener  
CH256

REDUCER	TEMPERATURE RANGE
CR733 Moderate	55°F - 70°F
CR734 Warm	65°F - 85°F
CR735 Hot	80°F - 95°F
CR736 Tropical	90°F - Up

**\*NOTE:** Consider size of repair, air flow, and spray conditions while selecting reducer.

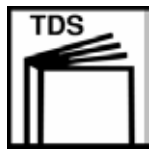
## POT LIFE



Time  
75 minutes

Temperature  
@ 75°F

## NOTES



- If fisheye eliminator is needed, add Cross/FIRE® Fisheye Eliminator CA266 as follows:
  - 2 – 6 capfuls per quart of **unreduced** Cross/FIRE® IP urethane single stage color.
  - 1 – 3 capfuls per quart of **ready to spray** Cross/FIRE® IP urethane single stage color.
  - 1 capful = 1/3 ounce or 9 grams.

## APPLICATION



- Apply 2 – 3 medium wet coats or until hiding is achieved with a gun distance of 8-10 inches
- Allow each coat to flash until handslick
- HVLP: 8-10 psi at the air cap
- Compliant spray gun: 22 – 24 psi
- Pressure Pot: 10 – 12 fluid ounces per minute at 30 – 35 psi
- A cross-coat method (horizontal coat, followed by a vertical coat) can be used for metallic colors. This will help achieve proper metallic orientation. **If further metallic orientation is needed, immediately apply a mist coat by increasing air pressure by 2-4 pounds and use a gun distance of 10 – 12 inches**
- Clean spray gun immediately after use with appropriate Gun Cleaner.

## THEORETICAL COVERAGE



Square Ft.  
689 FT gal\*

@ mil Dry  
1

\*NOTE: Will vary due to painter technique, color selection, gun selection, and many other factors.

## DRYING SCHEDULE



- Air dry times at 75°F and 50% relative humidity.

<b>Air Dry</b>	<b>Out of Dust:</b> 90 - 120 minutes at 75 °F
	<b>To Deliver:</b> 24 hours
<b>Force Dry</b>	30 Minutes at 120°F surface temperature

## Recoat



- Recoat window without sanding: 16 – 24 hours
- If allowed to sit for 24 hours or longer, Cross/FIRE® IP single stage must be scuffed or sanded before recoating.

## Buffing Times



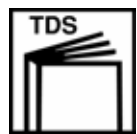
- If necessary, buffing should be performed within the first 24 to 48 hours.
- **Buffing a metallic finish is not recommended** because it will disorient the direction the metallics are laying on the surface.
- Sanding should be limited to de-nibbing imperfections.
- Start off by sanding the area with P2000 grit sandpaper followed by sanding with P3000 grit sandpaper. Continue to observe that the P2000 grit sand scratches are being removed by the P3000 grit sandpaper.
- Buff by machine with polishing pad, using a quality microfinishing compound, and follow with a microfinishing glaze. For ultimate appearance, hand glaze with a soft clean cloth.

## PERSONAL PROTECTION



- Read label, directions, and MSDS before use.
- Refer to MSDS for specific information.
- Wear a NIOSH approved organic vapor respirator when using this product.
- Wear a NIOSH approved dust particulate mask when sanding, mixing, or applying this product.
- Keep product, paint, and overspray off of the skin, wear goggles, coveralls, and chemical protective gloves when using this product.

## REGULATORY DATA



Cross/FIRE® IP Performance Urethane Single Stage	As Packaged		As Applied	
	LB / Gal	G / L	LB / Gal	G / L
Density	8.42	1008	8.30	994
	% by Wt.	% by Vol.	% by Wt.	% by Vol.
Volatiles	55.2	60.6	63.7	68.6
Water	0	0	0	0
Exempt Compounds	55.1	60.7	63.8	68.6
	LB / Gal	G / L	LB / Gal	G / L
VOC Total	2.09	251	2.97	355
VOC Less Exempt	3.07	368	4.08	489
	LB / Gal	G / L	LB / Gal	G / L
HAPS	1.23	.147	1.03	.124



**Cross/FIRE®**

## **LABEL CAUTIONS**

### **Cross/FIRE® Mixing Clear, CF232**

**DANGER! HARMFUL OR FATAL IF SWALLOWED. EXTREMELY FLAMMABLE - VAPORS MAY CAUSE FLASH FIRES! HARMFUL IF INHALED - MAY AFFECT THE BRAIN OR NERVOUS SYSTEM, CAUSING DIZZINESS, HEADACHE OR NAUSEA. IRRITATES EYES, SKIN AND RESPIRATORY TRACT. Before using, carefully read CAUTIONS on back panel. CAUTIONS SEE CONTENTS STATEMENT ELSEWHERE ON LABEL. Contents are EXTREMELY FLAMMABLE.** Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively. During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights and heaters – Turn off stoves, electric tools and appliances, and any other sources of ignition. **VAPOR HARMFUL.** Use only with adequate ventilation. Wear an appropriate properly fitted vapor/particulate respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. **FIRST AID: If INHALED:** If affected, remove from exposure. Restore breathing, Keep warm and quiet. If on **SKIN:** Wash affected area thoroughly with soap and water. Remove contaminated clothing. Launder before re-use. If in **EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention. If **SWALLOWED:** Call Poison Control Center, hospital emergency room, or physician immediately. **DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE.** Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. **WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN**

### **Cross/FIRE® Hardener, CH256**

#### **DANGER!**

**FLAMMABLE! VAPOR AND SPRAY MIST HARMFUL, OVEREXPOSURE MAY CAUSE LUNG DAMAGE. MAY CAUSE ALLERGIC RESPIRATORY AND SKIN REACTION, EFFECTS MAY BE PERMANENT. CAUSES EYE IRRITATION. HARMFUL IF INHALED - MAY AFFECT THE BRAIN OR NERVOUS SYSTEM, CAUSING DIZZINESS, HEADACHE OR NAUSEA. Before using, carefully read CAUTIONS on back panel. CAUTIONS SEE CONTENTS STATEMENT ELSEWHERE ON LABEL. Contents are FLAMMABLE.** Vapors may cause flash fires. Keep away from heat, sparks, and open flame. During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition. **VAPOR AND SPRAY MIST HARMFUL.** Gives off harmful vapor of solvents and isocyanates. **DO NOT USE IF YOU HAVE CHRONIC (LONGTERM) LUNG OR BREATHING PROBLEMS, OR IF YOU HAVE EVER HAD A REACTION TO ISOCYANATES. USE ONLY WITH ADEQUATE VENTILATION. WHERE OVERSPRAY IS PRESENT, A POSITIVE PRESSURE AIR SUPPLIED RESPIRATOR (NIOSH approved) SHOULD BE WORN TO PREVENT EXPOSURE. IF UNAVAILABLE, AN APPROPRIATE PROPERLY FITTED APPROVED NIOSH VAPOR/PARTICULATE RESPIRATOR MAY BE EFFECTIVE.** Follow directions for respirator use. Wear the respirator for the whole time of spraying and until all vapors and mists are gone. If you have any breathing problems during use, LEAVE THE AREA and get fresh air. If problems remain or happen later, IMMEDIATELY call a doctor - If not available get emergency medical treatment. Have this label with you. **IRRITATES SKIN AND EYES.** Avoid contact with eyes and skin. In case of eye contact, flush immediately with plenty of water for 15 minutes and call a doctor - If not available get emergency medical treatment. In case of skin contact, wash thoroughly with soap and water. Clothes contaminated by a spill should be removed and laundered. Keep container closed when not in use. Reacts with water in closed container to produce pressure which may cause container to burst. Do not transfer contents to other containers for storage. **FIRST AID: If INHALED:** If affected, remove from exposure. Restore breathing, Keep warm and quiet. If on **SKIN:** Wash affected area thoroughly with soap and water. Remove contaminated clothing. Launder before re-use. If in **EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention. If **SWALLOWED:** Call Poison Control Center, hospital emergency room, or physician immediately. **DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE.** Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. This product must be mixed with other components before use. Before opening the packages, **READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS. DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN. FOR PROFESSIONAL USE ONLY. SEE MATERIAL SAFETY DATA SHEET.**



## **LABEL CAUTIONS (continued)**

### **Cross/FIRE® Reducer, CR733, CR734, CR735,**

**DANGER! HARMFUL OR FATAL IF SWALLOWED. EXTREMELY FLAMMABLE - VAPORS MAY CAUSE FLASH FIRES! HARMFUL IF INHALED - MAY AFFECT THE BRAIN OR NERVOUS SYSTEM, CAUSING DIZZINESS, HEADACHE OR NAUSEA. IRRITATES EYES, SKIN AND RESPIRATORY TRACT. Before using, carefully read CAUTIONS on back panel. CAUTIONS SEE CONTENTS STATEMENT ELSEWHERE ON LABEL.** Contents are **EXTREMELY FLAMMABLE**. Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively. During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition. **VAPOR HARMFUL**. Use only with adequate ventilation. Wear an appropriate properly fitted vapor/particulate respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. **FIRST AID: If INHALED:** If affected, remove from exposure. Restore breathing. Keep warm and quiet. If on **SKIN:** Wash affected area thoroughly with soap and water. Remove contaminated clothing. Launder before re-use. If in **EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention. **If SWALLOWED:** Do not induce vomiting. Call Poison Control Center, hospital emergency room, or physician immediately. **DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE.** Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. **WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN. FOR PROFESSIONAL USE ONLY. SEE MATERIAL SAFETY DATA SHEET.**

### **Cross/FIRE® Reducer CR736**

**DANGER! FLAMMABLE! HARMFUL IF INHALED - MAY AFFECT THE BRAIN OR NERVOUS SYSTEM, CAUSING DIZZINESS, HEADACHE OR NAUSEA. IRRITATES EYES, SKIN AND RESPIRATORY TRACT. CAN BE ABSORBED THROUGH THE SKIN. MAY CAUSE BLOOD DAMAGE.** Before using, carefully read **CAUTIONS** on back panel. **CAUTIONS SEE CONTENTS STATEMENT ELSEWHERE ON LABEL.** Contents are **FLAMMABLE**. Vapors may cause flash fires. Keep away from heat, sparks, and open flame. During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition. **VAPOR HARMFUL**. Use only with adequate ventilation. Wear an appropriate properly fitted vapor/particulate respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. **FIRST AID: If INHALED:** If affected, remove from exposure. Restore breathing. Keep warm and quiet. If on **SKIN:** Wash affected area thoroughly with soap and water. Remove contaminated clothing. Launder before re-use. If in **EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention. **If SWALLOWED:** Call Poison Control Center, hospital emergency room, or physician immediately. **DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE.** Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Contains Ethylene Glycol Monobutyl Ether Acetate which may cause blood damage. **WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN. FOR PROFESSIONAL USE ONLY. SEE MATERIAL SAFETY DATA SHEET.**