

Technical Data Sheet

Euro Colour MS 2K Clear 2:1 E 321

Description: Euro Colour MS 2K Clear 2:1 is a high solids, three-component urethane clear for more productive premium-quality spot, panel and multi-panel as well as overall repairs. It handles easily, using temperature-specific reducers to adapt to a wide range of application conditions. It delivers superior appearance with the special advantage of rapid booth throughput.

Relevant Products

E 321	MS 2K Clear 2:1
E 444	MS Universal Activator
E 500	2K Thinner (for spot or panel repair)
E 500s	2K Thinner (for overall repair)
Extra 100	Rubbing compound
Car cream	Finishing compound
Microfinishing Glaze	Finishing agent


Recommended Substrates







- OEM finishes
- Cured repaired finishes
- Euro Colour Master Colour

Physical Properties

Appearance	Vicious Liquid
Colour	Transparent
Odour	Characteristic
Viscosity	25.50 ± 0.30 sec (IWATA #2)
Density (g/lit)	890-915
% non- volatile	45 ± 1 %
ph	n/a
% soluble in water	< 1.00 %

Product Preparation

	Mixing Ratio	Euro Colour E 321 Euro Colour E 444 2K Thinner	2 Parts 1 Part 0.30-0.60 Part
	Apply VOC	635-665 g/l	
	Pot life @ 20° C	1 hours	

Product Preparation (cont'd)				
	Spray viscosity @ 20° C	IWATA # 2	11 ± 0.10 sec	
	Spray equipment	Gravity feed Suction feed	Nozzle size	Distance
			1.4 – 1.6 mm 1.6 – 1.8 mm	15 – 20 cm 15 – 20 cm
	Spray pressure	Gravity feed Suction feed	35-40 pounds 35-40 pounds	
	Number of coats	1.5-2		
	Flash time	10-15 minutes		
	Time to polish	Air dry	up to 24 hours	
		Forced dry	4-5 hours after cool down	
	Theoretical coverage	8.1 m ² /lit at recommended DFT 50-70 μ -ready-to-spray		

Substrate Preparation

1. Mask the whole vehicle to protect from overspray for spot or panel repair.
2. Allow basecoat to dry 15-30 minutes.
3. Tack with appropriate basecoat tack cloth prior to applying clear.

Recoatibility/Re-repair

Clearcoat may be recoated during any stage of dry or cure. If recoating after 24 hours, scuff sand with 1200 - 1500 grit.

Polishing

- Optimum times:
- Air dry: up to 24 hours
 - Forced dry: 4-5 hours after cool down
- Sanding: Sanded with wet sandpaper 1500 grit
- Polishing:
- Apply a thin ribbon of Extra 100 to the area to be polished. Use double sided wool polishing pad or a sponge pad. Maintain air polisher or variable speed polisher at 1200 to 1800 rpm. Polish until all the 1500S are removed. Wash with water and soap. Wipe dry with clean cloth.
 - Apply thin ribbon of Euro Colour Car Cream or Euro Colour Microfinishing Glaze with soft wool or sponge pad throughout the polishing area. Keep the polisher moving all the area until complete removing all the scratch and achieve high gloss. Hand polish with a soft, clean with Microfinishing Glaze is recommended to prevent scratch.

Film Property	
Drying Time (@ 20°C)	
- Dust-free	10-15 minutes
- Dry to handle	6 hours
- Hard Dry (to polish)	24 hours
IR drying (@ 80°C)	
- Flash time	5-7 minutes
- Distance	80 cm
- Time to dry	30 minutes
- Dust-free	At cool down
- Dry to handle	2 hours after cool down
- Hard Dry (to polish)	2 hours after cool down

Film Property (cont'd)	
Film Thickness	50-70 μ
Gloss (60°)	90 \pm 2
Hardness	H
Adhesion (Master Colour)	25/25
Resistance to chemical	
Sodium hydroxide	20%
Sulphuric acid	25%
Hydrochloric acid	20%
Phosphoric acid	20%
Ammonia	10%
QUV Test (UVB -313 60°C x 4 hr- 50°C x 4 hr)	Gloss retention
0 hour	93.9%
209 hours	95.2%
446 hours	96.5%
718 hours	95.7%
1014 hours	94.0%
Remark: 180 hours QUV test result = 1 year in normal temperature condition	

Products	Packages (lit)	Storability @ 20° C (month)	Density @20° C (g/lit)
Euro Colour E 321	1.00	24	940-970
Euro Colour E 444	0.500	20	980-999
Euro Colour 2K thinner	3.785-13.000	24	Variously depended on each

Repair Systems

Overall repair

Pay attention to the application method. Spray procedure has to ensure proper overspray melt in which is achieved within 2 min. of the clear application. In case of working in high temperature condition, to avoid overspray, Euro Colour E500S is recommended to add by 2.5-5% by weight. Lower spray pressure and slower spray stroke are required to achieve DFT recommended.

Spot repair: Euro Colour E500 Blending Thinner method

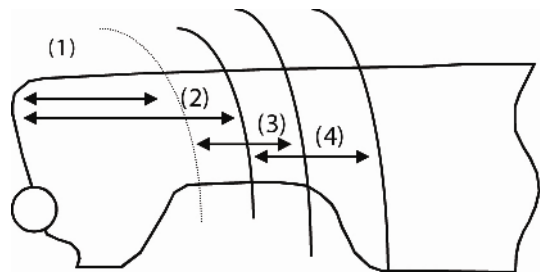
When spot repairing with Master Colour, the clearcoat method as described below can be used when blending out the clear in original areas is unavoidable, the melt-in of the clear can be achieved as described below:

- (1) Apply 1 coat of E321 over the basecoat, extending into the area surrounding the spot.
- (2) Apply a 2nd coat of E321, extending further into the area surrounding the spot.
- (3) OPTIONAL: reduce 1 part of activated ready for use E321 with 1 part E500 and apply 1 coat of reduced E321 over the blend-out area.
- (4) Blend in the fade-out area immediately with pure E500.

*** Surface should be carefully and correctly prepared before the basecoat application. See recommended use, paragraph surface preparation.

*** Stay with the application of AK350 within the prepared area.

If necessary, balance out the gloss level by buffing with Extra 100 and Euro Colour Car Cream or Microfinishing Glaze after the repair is completely hard dry. See the buffing in Polishing section below.



Safety Information

- Consult the chemical safety data sheet prior to use.
- Read the precautionary notice displayed on the container.
- Suggested protection suit and accessories must be used while working



- MSDS is available at distributors or the manufacture
- INDIVIDUALS WITH HISTORY OF LUNG OR BREATHING PROBLEMS OR PRIOR REACTION TO ISOCYANATES SHOULD NOT USE OR BE EXPOSED TO VAPOR OR SPRAY MIST. Do not permit anyone without protection in the painting area.

VOC Regulated Areas

These directions refer to the use of products which may be restricted or require special mixing instructions in VOC regulated areas. Follow mixing and usage recommendations in the VOC Compliant Products Chart for your area.

Disclaimer: To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user.

