



# SYSTEM 20 HS OVERALL CLEARCOAT (2:1)

UP2821, UP2822

DRIVING SURFACE PERFECTION

Version: 10.0 Date of issue: 01/01/2020 Revision date: 11/08/2020 Supersedes: 01/01/2020



## TECHNICAL DATASHEET

?



- U.V. resistant high build finish with excellent gloss retention.
- Can be applied over most water and solvent borne basecoat paint systems.
- Excellent scratch and abrasion resistance.
- Easy to apply.
- Can be used for spot, panel or overall repairs.
- Air dry, low bake or IR cure.
- Excellent flow and non-sag properties.
- Easy to sand and buff.

## APPLICATION INFORMATION



FOR PPE RECOMMENDATIONS REFER TO SDS

**IMPORTANT: FOR PROFESSIONAL USE ONLY. Read full instructions before use.**

This product contains hazardous materials and therefore appropriate personal protective equipment should always be used. Please refer to the label and consult the safety data sheet for full handling instructions and personal protection information. Persons suffering from asthma or eczema and persons who have chronic lung diseases, skin or respiratory allergies to isocyanates should not work with the material.

### Components



Product	Order Code	Format	Color
SYSTEM 20 HS OVERALL CLEARCOAT (2:1)	UP2821	1L Tin	Colorless
SYSTEM 20 HS OVERALL CLEARCOAT (2:1)	UP2822	5L Tin	Colorless
Hardener	Order Code	Format	Temperature ranges
SYSTEM 20 Fast Hardener	UP2307	250ml Tin	50 - 80°F
SYSTEM 20 Fast Hardener	UP2303	1L Tin	50 - 80°F
SYSTEM 20 Fast Hardener	UP2305	2.5L Tin	50 - 80°F
SYSTEM 20 Standard Hardener	UP2327	250ml Tin	60 - 90°F
SYSTEM 20 Standard Hardener	UP2323	1L Tin	60 - 90°F
SYSTEM 20 Standard Hardener	UP2325	2.5L Tin	60 - 90°F
SYSTEM 20 Slow Hardener	UP2333	1L Tin	70 - 100°F
SYSTEM 20 Slow Hardener	UP2335	2.5L Tin	70 - 100°F
SYSTEM 20 Extra Slow Hardener	UP2333XS	1L Tin	> 80°F
Reducer	Order Code	Format	Temperature ranges
SYSTEM 20 Fast Multifunction Reducer	UP2144	1 US Gallon Tin	50 - 80°F
SYSTEM 20 Standard Multifunction Reducer	UP2145	1 US Gallon Tin	60 - 90°F
SYSTEM 20 Slow Multifunction Reducer	UP2146	1 US Gallon Tin	70 - 100°F
Optional Additives	Order Code	Format	
SYSTEM 20 Rocket Paint Accelerator	UP0735	250ml Bottle	

Using products outside of the recommended application temperature or mixing ratio may lead to surface defects or improper through-cure. Please refer to additive technical data sheets for further use instructions.

### Mixing ratio



Standard Application	Volume	250 ml	500 ml	750 ml	1000 ml
SYSTEM 20 HS OVERALL CLEARCOAT (2:1)	2	161 g	323 g	484 g	645 g
SYSTEM 20 Standard Hardener	1	82 g	164 g	246 g	327 g
Reduced	Volume	250 ml	500 ml	750 ml	1000 ml
SYSTEM 20 HS OVERALL CLEARCOAT (2:1)	2	147 g	293 g	440 g	587 g
SYSTEM 20 Standard Hardener	1	74 g	149 g	223 g	298 g
SYSTEM 20 Standard Multifunction Reducer	10 %	20	40	60	81

Cumulatively mixing by grams will give the total indicated volume.

### Surface Preparation



**Substrate**  
Previously painted surfaces  
Freshly applied basecoat\*

**Degreaser**  
SYSTEM 20 Solvent/Water-Based Degreaser \*

**Abrasion**  
P1000 (wet or dry) \*

For best results, good preparation is essential. Clean and degrease removing dirt, oil, grease and wax with cleaning solutions such as U-POL's SYSTEM 20 Degreasers (please check local VOC regulations). Abrade with grit paper as stated above for each respective substrate. Re-clean, dry and degrease the abraded substrate ready for application. \*Before applying clearcoat, ensure the basecoat is prepared according to the manufacturer's technical data sheet.

### Gun Setup



	Standard Application
<b>Gun Tip Size (HVLP)</b>	1.2 – 1.4 mm
<b>Air Pressure at Gun (HVLP)</b>	2 bar / 29 PSI

### Application

	Standard Application
<b>Application Viscosity (Zahn #2)</b>	25 – 29 Seconds



# SYSTEM 20 HS OVERALL CLEARCOAT (2:1)

UP2821, UP2822

DRIVING SURFACE PERFECTION

Version: 10.0 Date of issue: 01/01/2020 Revision date: 11/08/2020 Supersedes: 01/01/2020



## TECHNICAL DATASHEET



**Working Pot-Life at 70 °F** 2 – 3.5

**Number of Coats** 2  
**Flash-off at 70°F between coats** 5 – 10 minutes

**Total Dry Film Thickness** 40 µm / 1.5 MIL  
**Theoretical Coverage @ 1 MIL DFT\*** 620.7 ft<sup>2</sup>/gal  
 \*Theoretical Coverage assuming total dry film thickness is attained at 100% transfer efficiency.

Paint straining is recommended prior to application to remove any unwanted dust or debris.  
 Use BLEND #9 Fade Out Reducer Aerosol for areas of the repair that require blending.



**Drying Time**

**Tack-Free at 70°F** 1 hour  
**Dust Free at 70°F** ?  
**Dry-Through at 70°F** 12 – 14 hours

**Flash-off at 70°F prior forced drying** 10 minutes  
**Dry-Through at 140°F** 30 minutes

Add Rocket paint accelerator 2 – 3 % or 30 ml into 1 Litre hardener to reduce dry times by 30 – 50%



**Recoating**

**Recoatable at 70°F after** ?  
**Recoatable at 70°F within** ?

This formulation can be recoated without sanding, if applied within the re-coat time. If the re-coat time has been exceeded, lightly scuff before recoat application.



**Polishing**

**Ready to Polish at 70°F** ?  
**Ready to Polish at 140°F** 1 hour after cool down of object to ambient temperature from bake cycle.



**Additional information**

**Equipment Cleaning** Clean gun immediately after use with thinner or gunwash. Please choose gun-cleaner products which are VOC compliant in your area.

**Important Remarks** Activated material should not be returned to the original can of non-activated material.  
 Do not use activated product beyond pot life



**Unmixed**

**As Packaged Regulatory VOC** 517 g/l (4.3 lb/gal)  
**As Packaged Actual VOC** 517 g/l (4.3 lb/gal)  
**Percent Solids** 46.65 wt%  
**Percent Solids** 41.08 vol %  
**Volatiles** 53.4 wt%  
**Water Content** 0 wt%  
**Water Content** 0 vol %  
**Exempt Compounds by weight** 0 wt%  
**Exempt Compounds by volume** 0 vol %  
**% EPA HAPS** 27.1 wt%  
**Density**

**Standard Application 2 : 1**

**As Applied Regulatory VOC** 552 g/l (4.6 lbs/gal)  
**As Applied Actual VOC** 552 g/l (4.6 lbs/gal)  
**Percent Solids** 43.21 wt%  
**Percent Solids** 38.23 vol %  
**Volatiles** 56.8 wt%  
**Water Content** 0 wt%  
**Water Content** 0 vol %  
**Exempt Compounds by weight** 0 wt%  
**Exempt Compounds by volume** 0 vol %  
**% EPA HAPS** 25.8 wt%  
**Density** 973 g/l (8.1 lbs/gal)

**Reduced 2 : 1 : 10 %**

**As Applied Regulatory VOC** 583 g/l (4.9 lbs/gal)  
**As Applied Actual VOC** 583 g/l (4.9 lbs/gal)  
**Percent Solids** 39.61 wt%  
**Percent Solids** 34.76 vol %  
**Volatiles** 60.4 wt%  
**Water Content** 0 wt%  
**Water Content** 0 vol %



# SYSTEM 20 HS OVERALL CLEARCOAT (2:1)

UP2821, UP2822



DRIVING SURFACE PERFECTION

Version: 10.0 Date of issue: 01/01/2020 Revision date: 11/08/2020 Supersedes: 01/01/2020

## TECHNICAL DATASHEET

<b>Exempt Compounds by weight</b>	0 wt%
<b>Exempt Compounds by volume</b>	0 vol %
<b>% EPA HAPS</b>	27.0 wt%
<b>Density</b>	965 g/l (8.0 lbs/gal)

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

**Recommended storage temperature** 41°F - 77°F

### Shelf Life & Storage



Product	Order Code	Format	Shelf Life
SYSTEM 20 HS OVERALL CLEARCOAT (2:1)	UP2821	1L Tin	5 years
SYSTEM 20 HS OVERALL CLEARCOAT (2:1)	UP2822	5L Tin	5 years
SYSTEM 20 Fast Hardener	UP2307	250ml Tin	2 years
SYSTEM 20 Fast Hardener	UP2303	1L Tin	2 years
SYSTEM 20 Fast Hardener	UP2305	2.5L Tin	2 years
SYSTEM 20 Standard Hardener	UP2327	250ml Tin	2 years
SYSTEM 20 Standard Hardener	UP2323	1L Tin	2 years
SYSTEM 20 Standard Hardener	UP2325	2.5L Tin	2 years
SYSTEM 20 Slow Hardener	UP2333	1L Tin	2 years
SYSTEM 20 Slow Hardener	UP2335	2.5L Tin	2 years
SYSTEM 20 Extra Slow Hardener	UP2333XS	1L Tin	2 years
SYSTEM 20 Fast Multifunction Reducer	UP2144	1 US Gallon Tin	5 years
SYSTEM 20 Standard Multifunction Reducer	UP2145	1 US Gallon Tin	5 years
SYSTEM 20 Slow Multifunction Reducer	UP2146	1 US Gallon Tin	5 years

### Associated Products



Product	Order Code	Format	Shelf Life
SYSTEM 20 Rocket Paint Accelerator	UP0735	250ml Bottle	5 years
BLEND #9 Fade Out Reducer Aerosol	UP0874	450ml Aerosol	5 years
SYSTEM 20 Water-Based Degreaser	UP2002	5L Canister	5 years
SYSTEM 20 Solvent-Based Fast Degreaser	UP2012	5L Tin	5 years
SYSTEM 20 Solvent-Based Slow Degreaser	UP2021	1L Tin	5 years
SYSTEM 20 Solvent-Based Slow Degreaser	UP2022	5L Tin	5 years
HVLP Gravity Gun 1.3mm tip	UP0323	1-pack	-
HVLP Gravity Gun 1.4mm tip	UP0324	1-pack	-

U-POL disclaims any liability where the user does not wear the recommended personal protective equipment. The above data is for information only and may change without prior notice. It is the Buyers responsibility to ensure the suitability of the products for their own use and check the information is up to date. The recommendation of use of our products and application in our technical data sheets are based on our knowledge and experience. These data sheets are available via your local stockist or via the U-POL website at WWW.U-POL.COM. U-POL is not responsible for the results obtained by others over whose methods we have no control and thereof U-POL is not liable for consequential or incidental damages including loss of profits. U-POL is not liable for mis-use or abuse of its products and no application warranty is expressed or implied.

For additional technical assistance, please contact the U-POL Technical Department at [technicalsupport@u-pol.com](mailto:technicalsupport@u-pol.com)

U-POL US Inc  
108 Commerce Way  
Easton, PA 18083 - United States  
T 1-800-340-7824 - F 1-800-787-5150  
[technicalsupport@u-pol.com](mailto:technicalsupport@u-pol.com) - [www.u-pol.com](http://www.u-pol.com)