



SYSTEM 20 4:1 HIGH BUILD PRIMER



DRIVING SURFACE PERFECTION
TECHNICAL DATA SHEET

NATIONAL RULE VOC

Version: 1.0

TECHNICAL DATA SHEET & PROCESS GUIDE

Multipurpose primer offering the functionality of '3 products in 1'. Mix 4:1 for a primer filler, 4:1:1 for a primer surfacer or 4:1:2 for a primer sealer.

- Use for spot repair and large panels.
- Excellent build and surface leveling properties.
- Easy to sand wet or dry.
- Can be applied direct to metal, over most plastics and over unsanded E-coat, aluminum and galvanized.
- Tintable with up to 10% with urethane mixing base

Available Colors • Gray • White • Black

TECHNICAL DATA



	Base	Mixed 4:1
Viscosity		50 - 70 s/ ZAHN#2
Solid content	76.20%	71.20%
Specific gravity g/cm ³	1.68	1.54

APPLICATION GUIDE

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.

- Substrates**
- Original Paint
 - Galvanized steel*
 - Aluminum*
 - Mild Steel
 - Polyester Fillers
 - E-coat
 - Fiberglass, SMC



- Tools Required**
- SYSTEM 20 Solvent/Water-Based Degreasers
 - HVLP Gravity Gun
 - P180 - P600 Grit Sandpaper
 - MAXIMUM Painters Overalls



Surface Preparation

	Bare Steel	Aluminum*	Galvanized*	Original Paint	Body Filler	Fiberglass, SMC
	UP2012/21/22	UP2012/21/22	UP2012/21/22	UP2012/21/22	UP2012/21/22	UP2002
	P180	P180	P180	P220	P220	P220

For best results, good preparation is essential: Clean and degrease removing dirt, oil, grease and wax with a cleaning solution, like **SYSTEM 20 Solvent-Based (UP2012/22)** or **SYSTEM 20 Water-Based (UP2002) Degreaser** before and after sanding (please be aware of your local solvent-cleaning VOC regulations). Dry thoroughly before applying **SYSTEM 20 4:1 High Build Primer**.

**Aluminum and galvanized steel components must be primed with 1-2 light coats of ACID#8 Acid Etch Primer and allowed to dry for 20 minutes before applying SYSTEM 20 4:1 High Build Primer.*



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Hardener Selection

Temperature °F	Hardener	Part Number
50 - 80°F	SYSTEM 20 Fast Hardener	UP2302, UP2303, UP2305, UP2307
60 - 90°F	SYSTEM 20 Standard Hardener	UP2322, UP2323, UP2325, UP2327
70 - 100°F	SYSTEM 20 Slow Hardener	UP2333, UP2335

U-POL GREY-SHADE

U-POL GREY-SHADE is an economical tool to achieve specific shades of grey undercoat resulting in savings on basecoat usage. Use this mixing guide to achieve different shades of grey using White, Grey or Black. For more details visit www.u-pol.com

GREY SHADE					
Mixing Ratio					
White	UP2257, UP2276, UP2277	100%		75%	
Grey	UP2251, UP2255, UP2253		100%		50%
Black	UP2256, UP2274, UP2275			25%	50% 100%

	High Build Primer	Primer Surfacer	Wet-on-Wet Sealer
Mixing Ratio			
Primer:Hardener:Reducer	4:1:-	4:1:1	4:1:2
	Mixing by Weight (grams)		
SYSTEM 20 4:1 High Build Primer	200	200	200
SYSTEM 20 Standard Hardener	29.2	29.2	29
SYSTEM 20 Standard Reducer	—	26.8	54
Viscosity ZAHN#2 / sec	50 - 70	20 - 22	16 - 18
Working Pot-Life @ 70°F	1 - 2 hours	1 - 2 hours	2 - 3 hours
Compliant HVLG Gravity Gun			
Gun tip size	1.7 - 2.0 mm	1.4 - 1.7 mm	1.3 - 1.4 mm
Air Pressure at the gun	26 - 29 PSI	26 - 29 PSI	26 - 29 PSI
Coats	1 - 2 coats	2 - 3 coats	1 - 2 coats
Dry Film Build	180 µm (7 MIL)	100 - 120 µm (4 - 5 MIL)	30 - 60 µm (1 - 2 MIL)
Flash-off @ 70°F			
Between coats	15 mins	10 mins	10 mins
Drying Times			
Sandable @ 70°F	3 - 4 hours	3 - 4 hours	2 - 3 hours
Sandable @ 140°F	20 - 30 mins	20 - 30 mins	20 - 30 mins
Sandable IR @ 140°F	15 mins	15 mins	15 mins
Sanding			
Dry Sanding / Abrasive	P320 - P400	P500 - P600	P500 - P600 if required
Wet Sanding / Abrasive	P320 - P400	P500 - P600	P500 - P600 if required



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Over Painting

SYSTEM 20 4:1 HIGH BUILD PRIMER can be directly topcoated with most solvent and water-based basecoats or solid colors.



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STORAGE & VOC INFORMATION



Shelf Life

2 years from date of manufacture in sealed original containers.

Recommended Storage Temperature 40°F - 75°F

Recommended Application Temperature As per the Hardener Selection table above

Equipment Cleaning Clean gun Immediately after use with SYSTEM 20 Reducer or gunwash. Please check your local VOC regulations.

Important Remarks

Do not use activated product beyond pot life. Activated material should not be returned to the original can of non-activated material. After 10 minutes standing, the coating may need mild agitation to reliquify before 2nd and 3rd coat applications.

	SYSTEM 20 4:1 HIGH BUILD PRIMER - GRAY As Packaged		As Applied 4:1 with SYSTEM 20 Standard Hardener	
VOC Regulatory	400 g/l	3.34 lbs/gal	445 g/l	3.7 lbs/gal
VOC Actual	400 g/l	3.34 lbs/gal	445 g/l	3.7 lbs/gal
Percent Solids	72.6% by weight	50.3% by volume	67.7% by weight	46.9% by volume
Volatiles	23.8% by weight		28.8% by weight	
Water	0% by weight	0% by volume	0% by weight	0% by volume
Exempt compounds	0% by weight	0% by volume	0% by weight	0% by volume
HAPS %	11.1% by weight		12.6% by weight	
Density	1684 g/l	14.0 lbs/gal	1544 g/l	12.9 lbs/gal
	As Applied 4:1:1 with SYSTEM 20 Standard Hardener and SYSTEM 20 Standard Reducer		As Applied 4:1:2 with SYSTEM 20 Standard Hardener and SYSTEM 20 Standard Reducer	
VOC Regulatory	536 g/l	4.5 lbs/gal	582 g/l	4.8 lbs/gal
VOC Actual	521 g/l	4.5 lbs/gal	582 g/l	4.8 lbs/gal
Percent Solids	60.3% by weight	39.0% by volume		
Volatiles	39.1% by weight		44.3% by weight	
Water	0% by weight	0% by volume	0% by weight	0% by volume
Exempt compounds	0% by weight	0% by volume	0% by weight	0% by volume
HAPS %	13.9% by weight		14.0% by weight	
Density	1372 g/l	11.4 lbs/gal	1313 g/l	10.9 lbs/gal

	SYSTEM 20 4:1 HIGH BUILD PRIMER - BLACK As Packaged		As Applied 4:1 with SYSTEM 20 Standard Hardener	
VOC Regulatory	402 g/l	3.3 lbs/gal	445 g/l	3.7 lbs/gal
VOC Actual	370 g/l	3.1 lbs/gal	445 g/l	3.7 lbs/gal
Volatiles	27.4% by weight		28.8% by weight	
Water	0% by weight		0% by weight	
Water	0% by volume		0% by volume	
Exempt compounds	0% by weight		0% by weight	
Exempt compounds	0% by volume		0% by volume	
HAPS %	11.1% by weight		12.6% by weight	
Density	1684 g/l	14.0 lbs/gal	1544 g/l	12.9 lbs/gal
	As Applied 4:1:1 with SYSTEM 20 Standard Hardener and SYSTEM 20 Standard Reducer		As Applied 4:1:2 with SYSTEM 20 Standard Hardener and SYSTEM 20 Standard Reducer	
VOC Regulatory	536 g/l	4.5 lbs/gal	582 g/l	4.8 lbs/gal
VOC Actual	521 g/l	4.5 lbs/gal	582 g/l	4.8 lbs/gal
Volatiles	39.1% by weight		44.3% by weight	
Water	0% by weight		0% by weight	



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Water	0% by volume		0% by volume	
Exempt compounds	0% by weight		0% by weight	
Exempt compounds	0% by volume		0% by volume	
HAPS %	13.9% by weight		14.0% by weight	
Density	1372 g/l	11.4 lbs/gal	1313 g/l	10.9 lbs/gal

	SYSTEM 20 4:1 HIGH BUILD PRIMER - WHITE As Packaged		As Applied 4:1 with SYSTEM 20 Standard Hardener	
VOC Regulatory	400 g/l	3.34 lbs/gal	445 g/l	3.7 lbs/gal
VOC Actual	400 g/l	3.34 lbs/gal	445 g/l	3.7 lbs/gal
Volatiles	23.8% by weight		28.8% by weight	
Water	0% by weight		0% by weight	
Water	0% by volume		0% by volume	
Exempt compounds	0% by weight		0% by weight	
Exempt compounds	0% by volume		0% by volume	
HAPS %	11.1% by weight		12.6% by weight	
Density	1684 g/l	14.0 lbs/gal	1544 g/l	12.9 lbs/gal
	As Applied 4:1:1 with SYSTEM 20 Standard Hardener and SYSTEM 20 Standard Reducer		As Applied 4:1:2 with SYSTEM 20 Standard Hardener and SYSTEM 20 Standard Reducer	
VOC Regulatory	536 g/l	4.5 lbs/gal	582 g/l	4.8 lbs/gal
VOC Actual	521 g/l	4.5 lbs/gal	582 g/l	4.8 lbs/gal
Volatiles	39.1% by weight		44.3% by weight	
Water	0% by weight		0% by weight	
Water	0% by volume		0% by volume	
Exempt compounds	0% by weight		0% by weight	
Exempt compounds	0% by volume		0% by volume	
HAPS %	13.9% by weight		14.0% by weight	
Density	1372 g/l	11.4 lbs/gal	1313 g/l	10.9 lbs/gal



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REORDER CODE

Order Code	Size	Product
UP2257	4L Tin	SYSTEM 20 4:1 HIGH BUILD PRIMER - White NR VOC
UP2276	1L Tin	SYSTEM 20 4:1 HIGH BUILD PRIMER - White NR VOC
UP2277	1 US Gallon Tin	SYSTEM 20 4:1 HIGH BUILD PRIMER - White NR VOC
UP2251	1L Tin	SYSTEM 20 4:1 HIGH BUILD PRIMER - Gray NR VOC
UP2255	4L Tin	SYSTEM 20 4:1 HIGH BUILD PRIMER - Gray NR VOC
UP2253	1 US Gallon Tin	SYSTEM 20 4:1 HIGH BUILD PRIMER - Gray NR VOC
UP2256	4L Tin	SYSTEM 20 4:1 HIGH BUILD PRIMER - Black NR VOC
UP2274	1L Tin	SYSTEM 20 4:1 HIGH BUILD PRIMER - Black NR VOC
UP2275	1 US Gallon Tin	SYSTEM 20 4:1 HIGH BUILD PRIMER - Black NR VOC
UP2002	5L Bottle	SYSTEM 20 Water-Based Degreaser 25 g/l (0.2 lbs/gal) VOC
UP2012	5L Tin	SYSTEM 20 Fast Drying Solvent-Based Degreaser
UP2022	5L Tin	SYSTEM 20 Slow Drying Solvent-Based Degreaser
UP2302	500ml Tin	SYSTEM 20 Fast Hardener NR
UP2303	1 QT Tin	SYSTEM 20 Fast Hardener NR
UP2305	2.1L Tin	SYSTEM 20 Fast Hardener NR
UP2307	250ml Tin	SYSTEM 20 Fast Hardener NR
UP2322	500ml Tin	SYSTEM 20 Standard Hardener NR
UP2323	1L Tin	SYSTEM 20 Standard Hardener NR
UP2325	2.5L Tin	SYSTEM 20 Standard Hardener NR
UP2327	250ml Tin	SYSTEM 20 Standard Hardener NR
UP2333	1 QT Tin	SYSTEM 20 Slow Hardener NR
UP2335	2.5L Tin	SYSTEM 20 Slow Hardener NR
UP2452	5L Tin	SYSTEM 20 Multifunctional Standard Reducer NR
UP0323	1-pack Gun	MAXIMUM HVLP Gravity Spray Gun 1.3 mm tip
UP0324	1-pack Gun	MAXIMUM HVLP Gravity Spray Gun 1.4 mm tip
UP0326	1-pack Gun	MAXIMUM HVLP Gravity Spray Gun 1.7 mm tip
UP0327	1-pack Gun	MAXIMUM HVLP Gravity Spray Gun 2.0 mm tip
UP0420	M	MAXIMUM Painters Overalls
UP0421	L	MAXIMUM Painters Overalls
UP0422	XL	MAXIMUM Painters Overalls
UP0423	XXL	MAXIMUM Painters Overalls
UP0424	XXXL	MAXIMUM Painters Overalls

Please refer to the label and consult the safety data sheet for full handling instructions and personal protection information. 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.

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