

2.1/2.8 VOC Tintable Polyurethane Primer

HSP-2128

HSP-2128 is a high performance polyurethane primer providing superior film build, strong corrosion resistance, and fast dry properties. It has excellent adhesion over a wide variety of substrates, is heavy metal free, and may be custom tinted.

HSP-2128 is particularly suited for application over sandblasted metals—example applications include castings, hot rolled steel, and fabrications.

Features and Benefits:

- Excellent adhesion properties
- Fast dry for improved productivity
- Strong corrosion resistance
- Choice of low VOC options (2.1 and 2.8 lbs/gal)

Associated Products:

- HSP-2128 Low VOC Tintable Polyurethane Primer
- HSP-211 Catalyst for HSP-2128 Primers
- UA-11 Urethane Accelerator

Physical Constants: *All values are theoretical, depend on color and are Ready-to-Spray.
Actual values could vary slightly due to manufacturing variability.*

| | HSP-2128 w/tint | HSP-2128 w/tint : HSP-211 : UA-11 |
|---|-------------------------|--|
| Percent solids (by weight) | 79.9 – 80.6% | 80.0 – 80.5% |
| Percent solids (by volume) | 62.2 – 62.8% | 65.3 – 65.8% |
| HAPs | ≤ 0.01 lbs/gal | ≤ 0.01 lbs/gal |
| Photo-chemically reactive | No | No |
| Flash Point HSP-2128 = 1°F (-17°C) HSP-211 = 334°F (168°C) UA-11 = 96°F (36°C) | | |
| RTS Combinations: | HBA-9XX w/tint | HSP-2128 w/tint : HSP-211 : UA-11 |
| Volume Ratio | As is | 102 : 20 : 6 |
| Applicable Use Category | Primer Sealer | Primer Sealer |
| VOC Actual | 222 - 228 (g/L) | 222 – 226 (g/L) |
| VOC Actual | 1.85 - 1.90 (lbs/gal) | 1.85 - 1.89 (lbs/gal) |
| VOC Regulatory (less water less exempt) | 248 – 254 (g/L) | 242 – 247 (g/L) |
| VOC Regulatory (less water less exempt) | 2.07 - 2.12 (lbs/gal) | 2.02 - 2.06 (lbs/gal) |
| Density | 1,546 – 1,570 (g/L) | 1,457 – 1,477 (g/L) |
| Density | 12.89 - 13.09 (lbs/gal) | 12.15 - 12.31 (lbs/gal) |
| Volatiles wt. | 19.4 - 20.1 % | 19.5 – 20.0 % |
| Water wt. | 0.0 % | 0.0 % |
| Exempt wt. | 5.2 - 5.3 % | 4.4 - 4.5 % |
| Water vol. | 0.0 % | 0.0 % |
| Exempt vol. | 10.4 % | 8.3 % |

HSP-2128

Directions for Use

Substrate Preparation:

The surface to be coated must be free of all contamination (including dust, dirt, oil, grease, and oxidation). A chemical treatment (or conversion coating) will improve adhesion and performance properties of the finished coat. Variability can occur with substrates, preparation, application method or environment. We recommend that adhesion and system compatibility be checked prior to full application.



| Metal | Direct to Substrate |
|-------|---------------------|
|-------|---------------------|

| | |
|----------------------|--|
| Cold Rolled Steel | Excellent |
| Hot Rolled Steel | Excellent |
| Galvaneal | Excellent |
| Galvanized | Excellent* (see note) |
| Aluminum | Excellent |
| Plastic / Fiberglass | Surface should be free of all contamination. Because of the variability of plastic/fiberglass substrates, coating performance should be confirmed on the actual plastic/fiberglass substrate being used. |

Note: For acceptable compatibility between this primer and CPC topcoats please see the CPC Primer/Topcoat compatibility chart (CPCTB01).

** Galvanized surfaces will need chemical treatment or a conversion coat such as PLC-900 for exterior and/or harsh environments.*

Mix Directions:



Stir thoroughly prior to and occasionally during use.

For a one-gallon RTS kit: to each gallon (102 oz. net) of tinted HSP-2128, add the entire contents of a one quart (20 oz. net) container of HSP-211 catalyst, and 6 oz. of UA-11 accelerator.

For one-quart RTS: mix 25.5 oz. tinted HSP-2128 with 5 oz. HSP-211 and 1.5 oz. UA-11.

Note: Moisture contamination in components can result in poor properties of applied films or gelation of the material. Do not open until ready to use.

DO NOT USE LACQUER THINNERS FOR CLEANING LINES.



Thinning: For improved application properties and pot life, thinning is recommended between 10% - 25% by volume with Acetone (Q30).



| Blend Ratio | For a one-gallon RTS kit | | | For one-quart RTS | | |
|-------------|--------------------------|---------|--------|-------------------|---------|--------|
| | HSP-2128 | HSP-211 | UA-11* | HSP-2128 | HSP-211 | UA-11* |
| | 102 oz | 20 oz | 6 oz | 25.5 oz | 5 oz | 1.5 oz |

***Important! UA-11 or UE-28 must be added to activated HSP-2128. UA-11 or UE-28 cannot be pre-added to the A-side**

Pot Life @ 77°F (25°C): 1.5-2 hours at 77°F thinned 10% by volume with Acetone (Q30). Additional Acetone may be added for longer pot life. Do not exceed 25% Acetone reduction by volume in non-VOC regulated areas. Mix only enough material that can be used in two hours or less.

Note: Higher temperatures will shorten pot life.

Spray Viscosity Range: #3 Zahn: 10 – 20 seconds

Shelf Life: Unopened = 4 years Opened = 2 years

Application Equipment:



Conventional/Compliant (with or without pressure pot): 1.3 mm needle/nozzle, 50 – 60 psi at the gun

HVLP (with or without pressure pot): 1.3 mm needle/nozzle, 10 psi at cap or per manufacturer's recommendation

Airless: No recommendation

Air-Assisted Airless: 0.009 - 0.013 tip, 800 – 1,200 psi fluid pressure, 40 psi atomization

Brush or Roll: Not recommended

Electrostatic: Not recommended

Application:



Apply: 1 – 2 medium coats with 15 minute flash between coats.

Recommended

Wet Film Build: 3.0 – 3.8 mils

Recommended

Dry Film Build: 2.0 – 2.5 mils

Square Foot Coverage

@ 1mil no loss: 1,047 – 1,055 sq. ft.

HSP-2128

Technical Data*

Dry Times:



| | |
|------------------------------|------------------------|
| Air Dry @ 77°F (25°C) 50% RH | |
| To Touch*: | 45 minutes |
| To Handle*: | 2 hours |
| Air Dry: | 8 hours |
| To Topcoat**: | After 1 hour to 4 days |
| Force Dry @ 160°F (71°C): | N/A |

* Paint film is not fully cured for 7 days. Drying time listed may vary, depending upon film build, color selection, temperature, humidity and degree of air movement.

** After 4 days, the coating must be mechanically abraded and cleaned prior to topcoating.

Performance Properties:

System:
BONDERITE 1000
HSP-2128 (tinted gray)
No topcoat

| Test | ASTM Method | Result |
|------------------------------|-------------|---------------|
| Pencil Hardness | D3363 | F |
| Gravelometer | D3170 | 9 |
| Mandrel | D522 | Pass |
| Impact (direct/indirect) | D2794 | 70/30 in.-lbs |
| In Service Temperature Limit | | 300°F (149°C) |

Chemical Resistance:

System:
Bonderite 1000
HSP-2128 (tinted gray)
No topcoat

| Chemical | ASTM Method | Result |
|---|-------------|---------------|
| Toluene | D1308 | Pass |
| 10% NaOH (Sodium Hydroxide) | D1308 | Pass |
| 10% HCl (Hydrochloric acid) | D1308 | Mild Blisters |
| 10% H ₂ SO ₄ (Sulphuric acid) | D1308 | Mild Blisters |
| Gasoline | D1308 | Slight Ring |
| Isopropanol | D1308 | Slight Ring |
| Distilled Water** | D1308 | Pass |

** Although resistant to intermittent exposure, this product is not recommended for immersion.

Weather Resistance:

Sandblasted HRS
HSP-2128 (tinted gray)
AUE-300

| | ASTM Method | Result |
|--------------------------------|-------------|---------|
| Salt Spray – 1000 hours | B117 | |
| Corrosion Creep | D1654 | 7A – 9A |
| Scribe Blisters | D714 | 4M, 6M |
| Face Blisters | D714 | None |
| Humidity – 100 hours | D2247 | |
| Initial Adhesion | D3359 | 5B |
| 5 Minute Recovery Adhesion | D3359 | 5B |
| 1 Hour Recovery Adhesion | D3359 | 5B |
| 24 Hour Recovery Adhesion | D3359 | 5B |

All tests results assume proper cure and preparation of test substrates. Unless otherwise stated, all results were obtained spraying product direct to metal on *Bonderite 1000*.

*The application and performance property data above are believed to be reliable based on laboratory findings. It is for the buyer to satisfy itself on the suitability of the product for its particular use. Variation in environment, procedures of use, or extrapolation of data may cause unsatisfactory results.

Miscellaneous

Safety:



These materials are designed for application only by professional, trained personnel, using proper equipment under controlled conditions and are not intended for sale to the general public.

Safe application of paints and coatings requires knowledge of equipment, materials and individual training. Directions and precautionary information on both equipment and products should be carefully read and strictly observed for personal safety and property protection. Consideration must be given to eliminate conditions, which may generate hazardous atmospheres during spray application or subject operators or bystanders to injury or illness.

Special precautions must be taken when utilizing spray equipment, particularly airless equipment. High-pressure injection of coatings into the skin by airless equipment may cause serious injury requiring immediate medical attention at a hospital. Treatment advice may also be obtained from Poison Centers.

Air quality should be maintained with adequate ventilation; applicators can achieve additional protection by wearing respirators and other protective garments such as gloves and overalls. In all cases, wear protective eye equipment. During the application of all coatings materials, all flames, welding and smoking must be prohibited. Explosion proof equipment must be used when coating these materials in confined areas.

PRECAUTIONARY INFORMATION

Before using the products listed herein, carefully read each product label and follow directions for its use. Please read and observe all warnings and precautionary information on all product labels. Prevent all contact with skin and eyes and breathing of vapors and spray mist. Repeated inhalation of high vapor concentrations may cause a series of progressive effects including irritation of the respiratory system, permanent brain and nervous system damage and possible unconsciousness and death in poorly ventilated areas. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

KEEP OUT OF THE REACH OF CHILDREN

MEDICAL RESPONSE

Emergency Medical or Spill Control Information (412) 434-4515; CANADA (514) 645-1320 and in MEXICO 01-800-00-21-400. Have label information available.



Safety Data Sheets (SDS) for the PPG products mentioned in this publication are available through www.ppgcommercialcoatings.com (Safety, SDS Search) or your PPG Distributor.

For additional information regarding this product, see the SDS and LABEL information.



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