PRODUCT DATA SHEET
AWLGRIP METALLICS

Features & Uses

AWLGRIP metallics are based on standard Awlgrip Topcoat technology, modified and blended to provide the optimized metallic or pearl effect. Through the use of flow stabilizers, metallic flake float has been drastically reduced, and color consistency is improved. The Awlgrip metallic will provide a finish with outstanding durability, color, brilliance and luster.

AWLGRIP metallic flakes are pre-mixed into the pigmented color base which is applied in the same way as conventional pigmented AWLGRIP topcoats. Alternatively, the color base may be overcoated with G3005 Awlgrip Clear.

The AWLGRIP PEARL FINISH SYSTEM adopts the use of Awlgrip color base, a pearlescent effect topcoat and then overcoated with G3005 Clear. This three component system maximizes on flexibility in color choice and provides consistency in the finished pearl effect .

Notes:- Metallic or Pearl topcoats must be applied over the appropriate Awlgrip primer or Awlgrip topcoat that has cured 12 to 24 hours and has been sanded until all gloss is removed.
- Metallics may be clear coated when applied as a base coat/clear coat application.
- Large area applications such as hull sides will require additional application techniques. Hulls designed with distinct break lines will be more appropriate for metallic or pearl effect systems, as this allows the applicator to deliver the optimal result. Use of an agitated pressure pot is essential for the larger areas.
- Contact your Awlgrip Technical Sales Representative for additional information.

Specification Data

Type: Linear Aliphatic Polyester Polyurethane
Packaging: Color base available in Gallons and Quarts.
Theoretical Coverage: Sq. Ft./Gallon 512 Sq. Feet (48m^2) at one mil dry (25 microns)
171-256 Sq. Feet (16-24m^2) at recommended dry film thickness. Calculated for mixed base and converter, reduced 25% to 35%
Coverage calculations are based on theoretical transfer efficiency of 100%. Actual coverage rate obtained will vary according to equipment choice, application techniques, part size, and application environment.
Recommended Wet Film Thickness: 6-9 mils* (150-225 microns) total of 2-3 coats.
Recommended Dry Film Thickness: 2-3 mils (50-75 microns) total of 2-3 coats.

**When spraying the metallic/pearl base slightly thinner coats may be applied to aid consistency, therefore reducing the risk of a 'cloudy' appearance. Optimal spraying technique should be sought by testing in local facilities as the finished result is greatly affected by the local environment (such as extraction, length/width of hoses, pressure, substrate, reduction & climate).*

Anticipated Cure Time at 77°F, 50% R.H: 24 Hours to tape free; 3 days to light service; 14 days for full cure.
Recoatability: Spray applications consist of 2-3 coats color base applied over 1-4 hours. Allow 30-45mins between tack coat and coverage coat. For Pearl Finish System allow 4 hrs minimum at 77°F/25°C between color base and pearlescent coating. Exact time will vary with temperature, project size, and film thickness applied. G3005 clear coat can be applied after 4 hours at 77°F (25°C) but ideally before 8 hours of cure. Ensure the last coat of metallic or pearl is dry to touch before applying G3005 to prevent mottling of the metallic. Longer recoat times are required at cooler temperatures.

VOC: Base (e.g.H8421 pearl): 567 g/lt or 4.7 lbs/gallon
Converter (G3010): 591 g/lt or 4.9 lbs/gallon

Product Components, Reducers, Additives, and Auxiliary Components

AWLGRIP Metallic Base ..... G/H-Code
AWLGRIP Pearlescent base..... H8421
AWLGRIP Gloss Clear G3005
AWL-CAT #2 Spray Converter G3010
Fast Evaporating Reducer-Spray T0001
Very Fast Evaporating Reducer-Spray T0002
Standard Evaporating Reducer-Spray T0003
Hot Weather Reducer-Spray T0005
Equipment Cleaning..... T0001, T0002, T0003, or M.E.K.

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Application Equipment

Conventional air atomized spray. Metallic and Pearl urethanes are spray only.

SPRAY EQUIPMENT

Pressure Pot System
Devilbiss or equivalent:
Spray Gun: JGA-510
Fluid Nozzle: FX – 1.1
Fluid Needle: 1.1
Air Nozzle: 704
PP PSI: 8-12 PSI
GUN PSI: 50-60 PSI

Cup Gun System
SATA jet 3000 RP:
Needle / Nozzle: 1.3 mm
PSI: 35 PSI

HVLP *may not provide enough atomization to get uniform distribution of the pearl or metallic particle. Standard conventional, air atomized spray gun is preferred.*

Surface Preparation

AWLGRIP metallics and pearls should be applied over the appropriate Awlgrip primer or Awlcraft 2000 topcoat. The primed surface must be clean and dry. Wipe with a surface cleaner such as T0170 (US)/T340(EU) or T0008, using the two cloth wipe down method. Achieving maximum gloss and distinction of image requires the primer to be smooth sanded with 320 grit paper before topcoat application. When applying metallics over Awlgrip topcoats, sand the surface with 400-500 grit paper. After sanding, blow off sanding dust and tack off using Awlgrip premium tack rags.

Mixing and Reduction

Spray Only: Mix by volume one part AWLGRIP Base component with one part AWL-CAT #2 (G3010) Spray converter to a smooth, homogenous mixture. Reduce 30%-35% with T0001, T0002 or T0003 Reducer. Overall mix is 1:1:¾-1 by volume. Example: 8 oz. Base, 8 oz. G3010, and 6-8 oz. Reducer. Clear coats, metallic or pearl effect colors & high temperature conditions may require additional reduction.

AWLGRIP metallics are designed for spray application only and have a significantly shorter pot life than pigmented topcoats.
Do not add accelerators to metallic topcoats.

Application Instructions

Metallic Single stage systems:
Apply by spray in light, slightly wet coats until hide is achieved, most AWLGRIP metallic topcoats achieve hide in 2 to 3 coats. Allow 20 to 40 minutes tack time between coats. This spray method allows uniform development of the metallic color without flooding or floating the metallic particles. After achieving the specified color, allow the coating to cure a minimum of 4 hours at 77°F (25°C) but not more than 8 hours before clear applications.

For Pearl Finish System : Allow 4 hrs minimum at 77°F/25°C between color base and pearlescent coating. Exact time will vary with temperature, project size, air flow and film thickness applied. Awlgrip recommends the faster evaporative reducer (T0001 or T0002) as they help set the film faster and avoid movement of the pearl. The Pearlescent base coat may be applied in 1-2 coats. 2 coats will promote uniformity in finished appearance. Plan work schedules so that the color base and H8421 pearlescent can be applied in the same shift. Take care not to over apply the Pearlescent as this could change the appearance of the final color.

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G3005 clear coat can be applied after 4 hours at 77°F (25°C) but ideally before 8 hours of cure. Ensure the last coat of metallic or pearl is dry to touch before applying G3005 to prevent mottling of the metallic/pearlescent coating. If sanding is desired, apply 2 coats of G3005 Clear and allow curing over night before sanding.

Warning:

Due to the wide variety of substrates, surface preparation methods, application methods and environments, customers should test the complete system for compatibility and aesthetics under their conditions prior to full scale application.

Temperature Range: Optimal Surface/Ambient Temperature range is 18°C (60°F) to 35°C (95°F). Proper application and/or cure results may be more difficult to achieve when conditions are outside this range.

Do not apply paint materials to surfaces less than 3°C (5°F) above dew point, or to surfaces warmer than 41°C (105°F). Ambient temperature should be minimum 10°C (50°F) and maximum 41°C (105°F).

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