

**SELECTION & SPECIFICATION DATA**

<b>Description</b>	High gloss acrylic aliphatic polyurethane paint that can be applied to direct-to-metal surfaces (DTM)
<b>Features</b>	<p>High Gloss Direct-to-metal application (no primer required) Suitable for high color, gloss and UV retention demanding conditions i.e. commercial on-vehicle surfaces. All RAL color card and special colors based on client requests Superior adhesion to surfaces i.e. Aluminum, DKP, Galvanized and Stainless Steel (Refer "PERFORMANCE TESTS" part) High opacity Can be applied with paint guns such as Airless, Airmix and Air Spray Can be applied over 2-component primers (for 1K primers, compatibility tests should be performed)</p>
<b>Color</b>	Various
<b>Finish</b>	High Gloss
<b>Solid(s) Content</b>	% 53±4
<b>Theoretical Coverage Rates</b>	50 micron DFT = 9,2 m <sup>2</sup> /kg 75 micron DFT = 6,1 m <sup>2</sup> /kg
<b>VOC Value(s)</b>	360 – 430 g/l (Value varies by color)
<b>Dry Temp. Resistance</b>	<p>Continuous: 93°C (199°F) Non-Continuous: 121°C (250°F)</p> <p>*May show discoloration above 65°C.</p>
<b>Limitations</b>	Avoid applications thicker than 125 microns in one coat. In these cases, boiling may occur due to solvent entrapment.

**SUBSTRATES & SURFACE PREPARATION**

<b>General</b>	<p>Surfaces should be cleaned as per SSPC SP-1 standard to remove all oil, grease, rust, dust, dirt and other chemical contaminants. When needed (ex. Over-coating window exceeded primers), surfaces may be roughened again by sandpaper or alike tools. For suitable primers, please consult CARBOLINE Technical Service for recommendations.</p> <p>IMPORTANT: During surface preparation, surface temperature should be 3°C above dew point.</p>
<b>Steel</b>	<p>For a strong adhesion, first of all, oil, rust, dirt, etc. on the surface to be applied according to SSPC SP-1. Clean properly from all materials and apply after roughening with sandpaper or power tools. For suitable primers, please consult Carboline Technical Service for recommendations.</p> <p>IMPORTANT: During surface preparation, surface temperature should be 3°C above dew point.</p>
<b>Galvanized Steel</b>	<p>For a strong adhesion, first of all, oil, rust, dirt, etc. on the surface to be applied according to SSPC SP-1. Clean properly from all materials and apply after roughening with sandpaper or power tools. For suitable primers, please consult Carboline Technical Service for recommendations.</p> <p>IMPORTANT: During surface preparation, surface temperature should be 3°C above dew point.</p>

# Multi-gard 22-8421

## PRODUCT DATA SHEET



### SUBSTRATES & SURFACE PREPARATION

#### Aluminum

For a strong adhesion, first of all, oil, rust, dirt, etc. on the surface to be applied according to SSPC SP-1. Clean properly from all materials and apply after roughening with sandpaper or power tools. For suitable primers, please consult Carboline Technical Service for recommendations.

IMPORTANT: During surface preparation, surface temperature should be 3°C above dew point.

#### Stainless Steel

For a strong adhesion, first of all, oil, rust, dirt, etc. on the surface to be applied according to SSPC SP-1. Clean properly from all materials and apply after roughening with sandpaper or power tools. For suitable primers, please consult Carboline Technical Service for recommendations.

IMPORTANT: During surface preparation, surface temperature should be 3°C above dew point.

### PERFORMANCE DATA

All test data was generated under laboratory conditions. Field testing results may vary.

Test Method	System	Results
Cross-Cut Adhesion Test (ASTM D3359)	Aluminum Surface 100 µm DFT Multi-gard 22-8421 (Surface prepared with 220 grit sandpaper)	5B
Cross-Cut Adhesion Test (ASTM D3359)	Galvanized Sheet Surface 100 µm DFT Multi-gard 22-8421 (Surface prepared with 220 grit sandpaper)	5B
Cross-Cut Adhesion Test (ASTM D3359)	Steel Sheet Surface 100 µm DFT Multi-gard 22-8421 (Surface prepared with 220 grit sandpaper)	5B
QUV Weathering Test (ASTM G154 Cycle 1)	QUV Basic Weatherometer (with UVA 340 lamps) Grinded cold rolled steel in 0.8 mm (The values are as Black and White colors. Color-specific results inf	%5 gloss loss and dE=1.0 after 2000 test hours
Salt Spray Test (ASTM B 117)	C&W Salt Spray Cabinet Sa 2½ grade and 40-75 micron surface profile 6mm cold rolled steel panel 150 µm DFT Multi-gard 22-8421	No paint defect or corrosion after 500 hours

### MIXING & THINNING

#### Thinning

After mixing thoroughly, Thinner #25 can be used. For air-spray, %5-10 thinner addition can be used before application. For airless applications thinner should not be used unless otherwise stated. For brush and roller applications thinner addition is not recommended.

#### Ratio

7/1 (by weight) with Carboline Urethane Converter 811

#### Pot Life

7 hours (23°C)

### APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

#### Spray Gun

Can be applied by an airless spray gun with 0.011 - 0.013" tip size and 40-80° fan pattern or by an gravity-fed/suction type air spray gun with 1.3 - 1.5 spray tip.

## APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

**Brush & Roller (General)** | Not recommended.

## APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	5°C (41°F)	5°C (41°F)	2°C (36°F)	0%
Maximum	35°C (95°F)	35°C (95°F)	35°C (95°F)	80%

IMPORTANT: During application, surface temperature should be 3°C above dew point.

## CURING SCHEDULE

Surface Temp.	Set to Touch	Touch Dry	Dry Hard
23°C (73°F)	50 Minutes	2 Hours	15 Hours

## PACKAGING, HANDLING & STORAGE

**Shelf Life** | Comp.A: 12 months @24°C  
Comp. B: 6 months @24°C  
  
When stored under recommended storage conditions and in its original unopened package.

**Shipping Weight (Approximate)** | 1 takım Net weight 20.57 kg (Gross weight: 22.304 kg)  
Comp. A Net weight 18 kg (Gross weight: 19.434 kg)  
Comp. B Net weight 2.57 kg (Gross weight: 2.870 kg)

**Storage Temperature & Humidity** | 4°-43°C ambient temperature and % 0-95 relative humidity

**Flash Point (Setaflash)** | Comp. A: 25°C  
Comp. B: 50°C

**Storage** | Store indoor with no direct sunlight coming

## WARRANTY

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