

# Mil-Tough® BR Polyurea Coating MLT301168/CAT136



Mil-Tough BR is a two-component, flexible light grey coating used in federal and military buildings to improve the blast protection of walls. The aliphatic amine and polyisocyanate components make this material durable to UV exposure. The polyisocyanate is not MDI based and has very low free monomer. The polyurea chemistry also provides a high level of toughness and flexibility at various temperatures. Mil-Tough BR is a "Cold Spray" formula enabling users to apply unheated in temperatures as low as 50 °F through low pressure cartridge applicators.

## Key Features and Benefits

- Formula provides enhanced blast mitigation for barracks and buildings
- Resistance function for blast performance of coating established through multiple tests
- Zero VOC – 100% Solids
- MDI Free
- Application methods include high volume heated or unheated spray equipment and low pressure cartridge application
- Provides excellent adhesion to a variety of construction material surfaces
- Fast cure properties

## Properties:

Property	MLT301168 (part B)	CAT-135 (part A)	MLT301168 as Applied (part A & part B)
Brookfield viscosity (cps) @ 23°C *	850 -1200 cps	300-600 cps	-
Weight/gallon (lbs)	8.5 -8.8	9.2 - 9.4	1.08
Specific Gravity	1.02 - 1.06	1.10 - 1.13	99.3 - 99.7 %
Weight Solids (% theoretical/actual)	100 / 71.5%	100 / 98.6	-
VOC as delivered Method 24 Section 6.2 (lbs/gal)	2.45	0.130	0.027
VOC as applied Method 24 Section 11.2 (lbs/gal)	-	-	-
Flash Point (Pensky-Martens Closed Cup)	230° F	201° F	-
Tensile Strength (MPa / psi)	-	-	15-18 / 2175-2610
Hardness (Shore D)	-	-	40-48
Elongation (%)	-	-	250-300
Young's Modulus (MPa / psi)	-	-	6-25 / 870-3625
Color	Lt Grey	Clear	Lt Grey
Storage Temperature (F)	40 - 100	40 - 100	-
Pumping Temperature (F)	40 - 100	40 - 100	-
Shelf life (unopened containers)	6 months	6 months	-

### Notes:

- \* Viscosity ranges are based on very few data points from small batches and may be revised as more data from larger, more normal size production batches are manufactured.
- \*\* Measured value depends on instrument strain rate.
- \*\*\* Measured value depends on instrument strain rate and % elongation reference point.

## MLT301169/CAT-136 PAINT APPLICATION\*:

Environmental Spray Temperature (F)	50 - 110° F
Environmental Humidity (%RH)**	10 - 90
<b>High Pressure:</b>	
Spray gun type	Graco GX7-DI
Material Temperature (F)	100 - 140° F
Tip	213 Spec
Recommended Starting Orifice size for 100-140 F material temperature (MLT301168/CAT-136)	24/29
Gun pressure (psi)	2000 - 2800
Fluid Flow (gpm)	0.90 +/- 0.1
<b>Low Pressure - Static mix tube</b>	
Material Temperature	50-110° F
Packaging size (dual cartridge sets)	dual 300cc = 600cc or dual 600cc = 1200cc
* Tip and restrictor include in pre-packaging	
Compressor Air Supply	90+ psi @ 14 nL air volume
MLT301168/CAT136 mix ratio (volume)	1/1
Tack free time (seconds)	50 - 70
Recommended dry film thickness (mils)	Varies by end-use 50 - 800 mils
Safety Equipment for Manual Application	See MSDS

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