

# RAVEN™

## BLACK OILS

Calumet's RAVEN™ products are high quality naphthenic-based black oils, which are specifically designed for use as base oils for lubricating greases and as process oils for the rubber industry.

### APPLICATIONS

- Adhesives
- Greases
- Process Oils
- Elastomers
- Lubricants

### TYPICAL PROPERTIES

PROPERTIES	METHOD	RAVEN 1500	RAVEN 140	RAVEN 5000
Viscosity at 100 °F (SUS)	ASTM D2161	1636	3291	-
Viscosity at 210 °F (SUS)	ASTM D2161	107	144	5627
Viscosity at 40 °C (cSt)	ASTM D445	305	602	-
Viscosity at 100 °C (cSt)	ASTM D445	21.0	29.0	-
Viscosity Index	ASTM D2270	82	66	-
API Gravity @ 60 °F	ASTM D4052	18.5	20.5	10.3
Specific Gravity, 60/60 °F	ASTM D4052	0.9433	0.9309	0.9978
Viscosity-Gravity Constant	ASTM D2501	0.882	0.854	0.867
Flash Point, COC (°F)	ASTM D92	333	445	595
Color, ASTM	ASTM D1500	D8.0	D8.0	D8.0
Pour Point (°F)	ASTM D97	-	1	-
Glass Transition Temperature (°C)	ASTM E1356	-39	-61	-39
Aniline Point (°F)	ASTM D611	187.0	209.0	-
Clay-Gel (Wt. %)	ASTM D2007			
-Asphaltenes		3.5	1.6	18.6
-Polars		20.5	14.0	31.5
-Aromatics		34.6	30.3	31.1
-Saturates		44.9	55.7	37.4
Benzo(a)pyrene (ppm)	EN 16143	< 1	< 1	< 1
Σ 8 PAH (ppm)	EN 16143	< 10	< 10	< 10

### TECHNICAL ASSISTANCE

For product or technical questions, contact your Sales Representative or Calumet Product Support at 1-800-437-3188 or email [technical@clmt.com](mailto:technical@clmt.com).

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