

# R. E. Carroll, Inc.

Fillers • Extenders • Oils • Lubricants

## Bentogel Organo Clay

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## Technical Data Sheet

### Characteristics

Bentogel BG Series rheological additives are produced from Na-bentonite and Ca-bentonite by puring and modifying. It has high gel efficiency, good viscosity repeatability, perfect anti-sediment and thickening ability when it is used in organic solvents. Bentogel BG Series rheological additives have excellent thixotropic property, fine dispersion, good sag resistance, wide solvent polarity range.

### Solvent Polarity Ranges of Bentogel Products

Low Polarity		Middle Polarity		High Polarity		
fatty group	aromatic compounds		alcohol, ketone, ester			
white oil	paraffin oil	methylbenzene	high molecular weight			low molecular weight
naphta hexane heptane	white alcohol mineral spirit	chian turpentine dimethyl benzene styrene	ethyl acetate propyl acetate glycol	phthalate ethyl methyl ketone butyl alcohol	dimethyl ketone dibutyl ester propylene carbonate	alcohol propyl alcohol buthyl alcohol hexone
BG 3						pre-gel
BG 6						
				BG 5		
BG 3B						
		BG 4		easy disperse		
BG 6C						
			BG 6D			

### Applications

Bentogel BG Series rheological additives are used in paint, ink, sealant, lubricating grease, putty, unsaturated polyester putty, cosmetics, anticorrosion paint, industrial paints and agricultural chemicals.

### Packaging

25 Kg's multi layer paper - PE bag.

### Storage

Store it in cool, dry place.

Magnesium Oxide • Sulfur • Waxes • Barium Sulfate • Alumina Trihydrate • Solvents • Zinc Oxide • Calcium Carbonates  
 Mica • Aromatic, Naphthenic, Paraffinic Process Oils • Gilsonite • Kaolin Clay • ASTM Reference Oils • Zinc Dust  
 Rubber Accelerators • EPDM • Precipitated Silica • Zinc Dust • White Oils • Transformer Oils • Metallic Stearates

### Solvent Polarity Range - Dispersion Condition

Item	Counter Brand	Solvent Polarity Range	Dispersion Condition
BG-2	Bentone ® 990	Water in oil emulsified mud, oil mud	Mixed as formulation procedure
BG-3	Bentone ® 34	Low to middle polarity	Polar activator : alcohol(or methyl alcohol/water(95/5), with the addition to be 30-60% of the organo clay
BG-3B	Bentone ® 52	Non-polarity and low polarity (200# solvent, coal tar oil) to middle polarity	Polar activator : alcohol(methyl alcohol/water(95/5), with the addition to be 45-60% of the organo clay
BG-4	Bentone ® SD-1	Low to middle high polarity	Eliminate polar activator
BG-5	Bentone ® 27	Middle to light polarity	Polar activator : alcohol(methyl alcohol/water(95/5), with the addition to be 30-60% of the organo clay
BG-6	Bentone ® 38	Low to middle polarity	Polar activator : alcohol(methyl alcohol/water(95/5), with the addition to be 30-40% of the organo clay
BG-6C	Bentone ® SD-3	Low to middle polarity	Eliminate polar activator
BG-6D	Bentone ® SD-2	Middle and high polarity	Eliminate polar activator

### Product Species

Item	Index	BG 2	BG 3	BG 3B	BG 4	BG 5	BG 6	BG 6B	BG 6C	BG 6D	BG 13	BG 16
Appearance		Shallow	Shallow	Shallow	Shallow	Shallow	White	White	Shallow White	White	Shallow White	White
Volatile content %105°C		≤5.0	≤3.5	≤3.5	≤3.5	≤5.0	≤3.5	≤3.5	≤5.0	≤5.0	≤3.5	≤3.5
Fineness (<76µm),%		≥ 98	≥ 98	≥ 98	≥ 98	≥ 98	≥ 98	≥ 98	≥ 98	≥ 98	≥ 98	≥ 98
Fineness (7% Xylene gum, 25°C), Pa.s			≥3.0	≥3.5		≥4.0	≥2.5	≥2.5			≥4.0	
Fineness (5% 200# gum, 25°C), mPa.s			500-1500	1500-3000					≥1000		≥3000	
Fineness (5.5% Resin gum 25°C), mPa.s					≥1000			≥800	≥1600	≥1200	≥2000	≥1000
Fineness of dispersion, µm					≤ 60		≤ 70	≤ 65	≤ 65	≤ 65	≤ 70	≤ 50
Colloid Rate %		≥ 95										
Heavy Metal (Pb),mg/kg							≤ 10					
As content, mg/kg							≤ 5					

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