



# TECHNICAL INFORMATION

## BIG HORN® 40

**Description:** **BIG HORN® 40** is a specially sized pure sodium bentonite for use in binding, sealing, absorbing and general applications.

<b>Typical Characteristics:</b>	<b>Bulk Density (lbs/ft<sup>3</sup>):</b>	68 ± 3
	<b>Cation Exchange Capacity (CEC meq(100gm):</b>	70 – 90
	<b>Color:</b>	Light Grey to Tan
	<b>Free Swell (cc/2gm):</b>	20 ± 4
	<b>Moisture Content (%):</b>	6 – 10
	<b>pH:</b>	9.1 ± 0.4
	<b>Resistivity (ohm-meters):</b>	2.40
	<b>Specific Gravity:</b>	2.55 ± 0.1
	<b>Thermal Conductivity (Btu/hr-ft-°F):</b>	Dry – 0.20 Saturated – 0.50
	<b>Wet Screen Analysis (Residue on #200 Sieve):</b>	3.0 ± 0.5

**Typical Sieve Analysis:**

Sieve Size	% Retained
#20	0.12
#40	22.13
#100	53.35
#200	16.32
Pan	8.08

Typical Chemical Analysis:	%
SiO <sub>2</sub>	60.34
Al <sub>2</sub> O <sub>3</sub>	19.28
Fe <sub>2</sub> O <sub>3</sub>	3.48
Na <sub>2</sub> O	2.34
TiO <sub>2</sub>	.22
CaO	.38
MgO	1.67
K <sub>2</sub> O	.10
H <sub>2</sub> O	7.75
Other	.07
L.O.I.	4.37

E.P.A Toxicity Analysis:	E.P.A Standard (ppm)	Typical Analysis (ppm)
<b>Arsenic</b>	5.0	<0.1
<b>Barium</b>	100.0	0.5
<b>Cadmium</b>	1.0	<0.05
<b>Chromium</b>	5.0	<0.1
<b>Lead</b>	5.0	<0.1
<b>Mercury</b>	0.2	<0.02
<b>Selenium</b>	1.0	<0.05
<b>Silver</b>	5.0	<0.1

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