

High Calcium Limestone “Supercal”

Production Facility: Exshaw Plant – Exshaw, Alberta

Description:

A light to dark gray microcrystalline pure limestone produced from a high-purity limestone deposit by quarrying, crushing, grinding, and screening operations. A sedimentary rock composed predominantly of calcium carbonate (CaCO₃).

Typical Chemical Properties:

	%
Calcium Carbonate (CaCO ₃), (%)	96.6
Calcium (Ca)	38.7
Magnesium Carbonate (MgCO ₃)	1.8
Magnesium (Mg)	0.5
Silica (SiO ₂)	1.4
Ferric Oxide (Fe ₂ O ₃)	0.1
Alumina (Al ₂ O ₃)	0.2
Manganese Oxide (MnO) (ppm)	< 50
Total Sulfur (S)	0.03
Loss on Ignition	43.3

Classical Reference Data:

Specific Gravity (Pure Calcite)	2.71
Solubility in Water (25 °C), (mg/l)	14
pH (saturated solution (25 °C)	8 – 9
Crushing Strength (mPa)	8.3 – 195.8
Hardness (Mohs)	2 – 4
Specific Heat (38 °C) (cal/g. °C)	0.114
Dielectric Constant	8 – 12



Typical Physical Properties:

Bulk Density: Loose/packed 1490 – 1666 kg/m³ or 93 – 104 lb/ft³

Size Distribution:

Sieve (mm)	Sieve (USA)	% Passing
1.250	No. 16	100
0.630	No. 30	82
0.315	No. 50	41
0.250	No. 60	27
0.160	No. 100	11
0.080	No. 200	1