

Product Evaluation

RE: Review of Tephralite Volcanic Lightweight Aggregates

PRODUCT

Tephralite Volcanic Lightweight Aggregates is manufactured and distributed in Alberta by Canlava Mining Corp. located in Langley, British Columbia. Website: www.canlava.com

VENDOR CLAIMS AND INFORMATION

CLAIMS

The intended purpose of using Tephralite volcanic lightweight aggregates is to reduce the weight of construction fills. Also, that coupled with the higher internal angle of friction of Tephralite can reduce the vertical and lateral forces within the fill. Tephralite can also improve drainage, soil resistivity and thermal insulation of fills.

DESCRIPTION

Tephralite Volcanic Lightweight Aggregates, quarried and produced near Quensel, British Columbia, consists of red to grey vesicular basalt. The advantages of Tephralite over traditional lightweight materials are well established. Its ease of transportation and installation reduces construction time and costs. Tephralite versatility and superior performance, acknowledged by construction industry experts, is demonstrated in a broad range of applications and uses.

POTENTIAL USAGE

Tephralite™ can be used for applications such as:

Retaining wall backfill	Building foundation backfill	Gas and oil pipeline fill
Bridge approaches and abutments	Road base lightweight fill	Utilities conduit line fill
Landfill drainage system	Water and sewer pipeline fill	

STANDARDS

ASTM D6928	Resistance of Coarse Aggregate to Degradation by Abrasion in the Micro-Deval Apparatus		
ASTM C136	Sieve Analysis	ASTM C29	Bulk density
ASTM C127	Relative Density and Absorption	ASTM D3744	Durability Index
AASHTO T288	pH	AASHTO T291	Chlorine Content
AASHTO T290	Sulphate content		

ALBERTA TRANSPORTATION COMMENTS

EXPERIENCE

Alberta Transportation has no experience with this product

APPLICABLE STANDARDS

Alberta Transportation Standard Specifications 3.2: Aggregate Production and Stockpiling
 Alberta Transportation Standard Specifications 3.8: Granular Fill
 Alberta Transportation Standard Specifications 55.3: Aggregate Production and Stockpiling
 Alberta Transportation Specifications for Bridge Construction, Section 2: Backfill

RECOMMENDATIONS

Tephralite Volcanic Lightweight Aggregates be listed as a Potential Product under Alberta Transportation Products List, Lightweight Fill – Proprietary, based on the information provided. Final acceptance as a proven product will be based on field performance.

RESTRICTIONS ON USE

Caveat: The aggregate comply fully with the Specification 3.2, Aggregate Production and Stockpiling

TRIAL PROJECTS

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