



February 1, 2019

ASTM C452 Certification of GCC Pueblo Cement, Type I/II

GCC Rio Grande, Pueblo Cement Plant performs sulfate resistance testing in accordance with ASTM C452-15 *Standard Test Method for Potential Expansion of Portland-Cement Mortars Exposed to Sulfate*. GCC Rio Grande, Pueblo Plant is an AASHTO Accredited Laboratory for Cement Testing.

Sulfate resistance testing is performed monthly. The average expansion at 14 days was 0.035 % for the period of January to December 2018. Sulfate expansion limit per ASTM C150-18 *Standard Specification of Portland Cement*, Table 4 for Type V high sulfate resistance cement at 14 days is 0.040 %.

GCC Pueblo Type I/II cement meets the optional sulfate resistance requirement of ASTM C150 for Type V cement. Per footnote E of Table 4 in ASTM C150, cement meeting the high sulfate resistance limit of Type V is deemed to meet the moderate sulfate requirement of Type II and Type II(MH).

Please do not hesitate to contact Bryan Patterson, Technical Service Director of (bpatterson@gcc.com) or Urs Fuchs, Quality Manager (ufuchs@gcc.com) should you have any questions.

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