1 (August 3, 2015) 2 Fiber Reinforcement for Shotcrete Facing 3 Fiber reinforcement for shotcrete facing shall be either steel fibers or macro synthetic 4 fibers. 5 6 Steel fibers shall be cold drawn, deformed steel Type 1 or Type 4 fibers conforming to 7 ASTM A 820 with a minimum tensile strength of 120 ksi. Steel fibers shall have a length 8 between 1.0 and 1.50 inches and shall have a length to diameter ratio of less than 80. 9 The steel fibers used shall be manufactured specifically for shotcrete applications. 10 11 Macro synthetic fibers shall be deformed polyolefin Type 3 fibers conforming to ASTM C 12 1116. Macro synthetic fibers shall have a length between 1.0 and 2.0 inches and shall be between 0.02 and 0.04 inches in diameter. The macro synthetic fibers used shall be 13 14 manufactured specifically for shotcrete applications. 15 16 Fiber reinforcement will be accepted based on the Manufacturer's Certificate of 17 Compliance.