

SHOTCRETE, FIBRE-REINFORCED

Any product which meets the specification requirements of Alberta Transportation Bridge Services Specification for the Repair of Bridges with Fibre-Reinforced Shotcrete ([B373](#)) or Bridge Construction Specification [B375](#) Fibre-Reinforced Shotcrete, Repair of SPCSP Culverts qualifies under this section.

CEMENT

Normal Portland Cement, Type 10: conforming to the current CSA/CAN3-A5.

SILICA FUME

Silica fume shall meet all the requirements for Type U material, as specified in CAN/CSA-A23.5 Supplementary Cementing Materials.

FINE AGGREGATE

The maximum allowable aggregate size is 6 mm, and the aggregate shall comply with the current CSA/CAN3-A23.1 Specification, Section 5.3 Fine Aggregate. The aggregate shall be dried to a moisture content of 0.1% by mass or less.

STEEL FIBRE

The fibre length shall be 25 mm and shall not contain any trace amounts of aluminium.

PROPRIETARY

<u>PROVEN PRODUCTS</u>	<u>TRIAL PRODUCTS</u>	<u>POTENTIAL PRODUCTS</u>
Ribtec		

WATER

Mix water shall be of drinking water standards, free of chemical and organic impurities, and comply with the current CSA/CAN3-A12.1 Specification Section 4 Water.

Mix Design Requirements

	Bridges B373	SPCSP B375
28 day Compressive Strength	40 MPa	50 MPa
Dry Silica Fume % by weight of concrete	5 to 10	
Steel Fibre	60 kg/cubic metre Uniformly distributed throughout the mix	

1. Maximum petrographic durability number for aggregates used in the mix shall be 115.
2. Compliance with CSA/CAN3-A23.1 regarding organic impurities, gradation of particle size and durability.