SIKA AT WORK

SCOTT BASE PASSIVE FIRE UPGRADE, ANTARCTICA

REFURBISHMENT

BUILDING TRUST

SCOTT BASE PASSIVE FIRE UPGRADE, ANTARCTICA

PROJECT DESCRIPTION
AntarcticaNZ required passive fire upgrades to be made to the existing Scott Base buildings to provide a higher level of fire protection (alongside sprinkler upgrades, provided by another contractor) until the new base is constructed. This work consisted of the construction of four new 60min fire separations internally. The weight of these required the installation of new steel beams supported by threaded rod piles externally. These piles were drilled into the permafrost and grouted into place using SikaGrout® Arctic-100. There are 14 piles all up, each drilled to a minimum approximate depth of 500mm.

PROJECT REQUIREMENT
A special Sika® Grout was required for the new piles. This was specified by the structural engineers (CHP Consulting Engineers) and was flown in from Canada. SikaGrout® Arctic-100 was chosen as it had previously been proven in the Arctic Circle.

CHALLENGES
The harsh climate of Antarctica made the work very challenging. Arctic 100 is proven to work to a minimum ground temperature of -10 degrees C. This meant that work had to be undertaken before the end of February while the weather was still moderate (by Antarctic standards!). By the time the Dominion Constructors team left a month later the temperatures were around -30 degrees C with a wind chill as low as -60 degrees C.

SIKA SOLUTION
SikaGrout® Arctic-100

PROJECT PARTICIPANTS

Product Specifier:	CHP Consulting Engineers
Main Contractor:	Dominion Constructors Ltd
Sika Contact:	Ian Drew

All photos courtesy of Dominion Constructors Ltd

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