Grouts
Reactive Resin Grouts

Construction

Market	Manufacturing Industry
Market segment	Oil Industry
Sub-segment	Refineries & Processing
Project	Petro Canada Refinery, Edmonton, AB (Strathcona Plant)
Products	Sikadur VPC complete with Sikadur aggregate #8
Existing situation	Grouting for new highline installation for new process unit
Challenge	Provide a flowable product that can be placed in cold weather conditions
Solution	Sikadur VPC with #8 aggregate at a ratio of 11:1 (5 bags of aggregate)

Don't get left out in the cold!
Construction delays avoided during sub-zero temperatures

Petro Canada was building a Sulpher Recovery Unit (SIG) to their existing refinery facility in Edmonton. The project required the installation of pipe racks called 'highline' that had to be grouted to its foundation of concrete piers. The construction of the new SIG unit started in July 2002, with the installation of the highline structure scheduled to be erected in January/February 2003. The average temperature in Alberta during this time period is between -15 and -21°C.
In order to avoid construction delays as well as heating and hording, the consulting engineers required a flowable product that could be placed in cold weather conditions while achieving a minimum compressive strength of 30 MPa in 24 hours.

The challenge was to provide a grout that would attain these results without delaying the construction schedule. Sikadur VPC was selected because of its cold temperature setting properties and for its high compressive strength. Sikadur VPC complete with the addition of Sikadur aggregate #8 at a ratio of 11:1 was mixed and placed between the steel support columns of the highline and the concrete piers at 50 mm thickness. By varying the aggregate to resin ratio, a suitable grout was obtained during the sub-zero temperatures at the desired thickness.

The Sika Solution provided by Sikadur VPC's outstanding physical and chemical properties and excellent thermal compatibility with the concrete was an ideal solution when fast-turn-around in frigid conditions was required.

Sikadur VPC

Universal Rapid Polymer Concrete

Can be placed down to -40°C and provides a fast cure reaching high strength within a few hours at sub-zero temperatures.

- Suitable for rail base pads, tower bases and structural repair work.
- Excellent abrasion resistance and thermal compatibility with concrete; ideal expansion joint nosing material.
- High chemical resistance.
- Fast turnaround of heavy industrial floor and containment areas in aggressive environments.

Other related products

Sika AnchorFix 2TU

For heavy duty anchoring

Cold weather epoxy acrylate hybrid anchoring gel

- Cures down to -21°C, sets up quickly in damp and water-filled holes, and attains high early strength.
- Ideal where extremely rapid setting, fast turn around times are required.

Sika Pronto® 11

Cold weather structural repair

Convenient, plant-proportioned, solvent-free, mortar system

- Used on grade, above and below grade on concrete and mortar
- Used as a highly chemical resistant mortar for patching and overlays.
- Usable at low temperatures; applicable down to -10°C (regular) and down to -25°C (sub-zero).
- High early, flexural and compressive strengths.
- Easy on-site batching.

Sikadur LT Grout

Rapid set grout for thin applications

Low-temperature rapid grout or anchoring system

Low viscosity modified vinyl ester material that cures at temperatures below 0°C and is blended with Sikadur Aggregate 3 to provide a grout consistency or repair mortar consistency.

- Especially effective for sub-zero temperature installations.
- Can be used at different aggregate loading to produce flowable or trowel grade mortars.
- Chemically resistant to a wide variety of acids, alkalies and salts.

New

Fast Set Mortars

Complete your jobs without delays!

SikaQuick 1000

One-component, rapid-hardening, early strength gaining, cementitious patching material for concrete

- Specially suited for hot weather applications when extended working time is required
- Rapid hardening as defined by ASTM C928
- Allows application of an epoxy coating within 6 hours
- Open to foot traffic in 4 hours, to vehicle traffic in 6 hours

SikaQuick 2500

One-component, very-rapid hardening, early strength gaining, cementitious patching material for concrete

- Very rapid hardening as defined by ASTM C928
- Allows application of an epoxy coating within 4 hours
- Open to foot traffic in 45 minutes, to vehicle traffic in 1 hour
- High early strength and fast setting

SikaSet 45

One-component, very-rapid setting, early strength gaining, chemically reactive patching and repair material for concrete

- Very rapid hardening as defined by ASTM C928
- Freeze/thaw resistance
- Open to foot traffic in 45 minutes, to vehicle traffic in 1 hour
- High early strength and fast setting

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