PRODUCT DATA SHEET

PRODUCT

Name :	Sure Twist 6mm remedial, warm roof and thin-joint wall tie by Construction Products Solutions.
Description:	Cold rolled stainless steel wire profiles and twisted for use as an anchor, wall tie or as a reinforcement member for use in concrete, masonry, mortar or stone construction elements.

MATERIAL PROPERTIES

Material Specification No.	1.4567 to EN 10088-1	
	EN:-	1.4567/X5CrNi18-10
	UNS:-	S 30430
	ASTM:-	304 Cu

PRODUCT PROPERTIES

Mass	0.062	kg/m
Cross Sectional Area (under load)	7.4	mm^2
Ultimate Tensile Strength	1165	N/mm^2
Ultimate Tensile Strength	8.64	KN
Yield Strength	745	N/mm^2
Ultimate Applied Shear Load (pure shear, no bending)	11.80	KN
Elongation (%)	2.52	
E Modul	107	G Pa
Helix Angle (to longitudinal axis)	32.14^o	

The Figures above are ultimate figures without any safety factors added.

TECHNICAL DATA 5.3.1

Revision Date 12/2004

POLYMER REINFORCED CEMENT BASED ANCHOR GROUT

Description

This is a two-part cementitious anchor grout. The powder component is based on a Portland cement mix with high quality graded silica sands plus a synergistic blend of admixtures. The liquid component is based on a styrene butadiene co- polymer, which acts as the total gauging liquid. The package is a plastic pail, which will act as the mixing vessel. The pack weights are ready for mixing to a pumpable grout and must be used as supplied. **No part mixing**. The grout is pumped into place using a Pumpable mortar cartridge gun. Each filling of the gun must be used within 5 minutes to avoid thickening. The product in the pail must be mixed each time a gun filling is carried out. The injected grout will tighten in the anchor hole and fix the bolt or other unit into the substrate. Tecgrip C is suitable for fixings into most construction materials including concrete, rock, brickwork, masonry blockwork or other substrates capable of carrying the design load.

Uses include: Ties into brick arches
Overhead rail tracks
Starter bars and dowels
Wall ties
Anchor slots

Typical Strength Properties @ 20°C Compressive Strength

1Day	7Days	14Days
20N/mm	50N/mm	60N/mm

Specification Outline

Anchor grouting shall be carried out using The above. The product must be stored handled and used strictly in accordance with the manufacturer's instructions.

Quality Assurance

The Company's quality system conforms to BS EN ISO 9001:2000 and is assessed by SGS Ltd Systems and Services Certification.

Standards

It has been tested in accordance with the appropriate parts of BS 6319, BS 1881

Instructions For Use

Preparation

Holes should be drilled with rotary percussive drills on air or water flush wherever possible. If fluted drills are used, the holes should be cleaned by wire brushing and blown out with clean compressed air. The airline hould be extended to the bottom of the hole to ensure complete removal of drilling debris and dust. Prior to application the drilled holes should be dampened with water and any excess water blown out.

Mixing

This is a two part mix supplied in the correct mixing proportions. Do not attempt part pack mixing. The outer package is a plastic pail, which is used as the mixing vessel. Pour all of the liquid component into the pail and add the powder component slowly whilst continuously mixing. The use of a slow speed high torque drill and Mortar Stirrer is recommended. After all the powder component has been added continue mixing for a further two minutes to ensure a homogenous mix.

TECHNICAL DATA **5.3.1**

Revision Date 12/2004

POLYMER REINFORCED CEMENT BASED ANCHOR GROUT

Instructions For Use

Placing

Load the mixed anchor grout into the cartridge of the injection gun. Use an extension tube for the cartridge to allow filling of the hole from the bottom to the mouth. Immediately after placing the injection grout, insert the bolt, bar, wall tie, slotting or other fixing. Gently agitate the inserted fixing to ensure complete contact by the anchor grout. Once placed do not disturb before the anchor grout has hardened.
Each pumpable mortar cartridge filling should be used within 5 minutes. The total working life of the mix will be approximately 60 minutes. Prior to each cartridge loading, the material in the pail should be re-mixed to maintain grout workability. For best tensile anchorage results a minimum embedment depth of 100mm is recommended. Hole diameters may be varied but a minimum of 2mm all round clearance should be used. This clearance may be increased for ease of placing fixings into deep holes.
Parameters controlling Uniaxial Pull Out Load:

- Type and strength of base material.
- Length of anchor bond.
- Hole forming or drilling method.
- Type of fixing, bolt or bar.

Safety Factors:

- Non critical applications : 1.5 minimum
- Critical applications : 2.0 minimum
- Compliance with relevant codes of practice and standards.

It may be placed at temperatures of 5°C to 35°C. For placing at temperatures outside this range contact the Technical Service Department.

Curing

During high temperature ambient conditions placed product should not be allowed to dry out for the first three days after placement. Exposed areas of placed product should be cured in accordance with good concrete practice including polythene sheeting or spray applied curing membrane.

Precautions

Health and Safety

This is alkaline when mixed and should not come into contact with skin or eyes. Avoid inhalation of dust during mixing and wear safety glasses, dust mask and gloves. If skin contact occurs wash thoroughly with clean water. Should eye contact occur rinse immediately with plenty of clean water and seek medical advice. Full health and safety data is given in Product Safety Data Sheet.

Fire

Non-flammable.

Yield

Supplied in a two-pack format packaged in a plastic pail. The yield of mixed material from each pack is 3 litres.

Storage And Shelf Life

This will have a shelf life of 12 months when kept in dry conditions at a temperature of 5°C to 45°C. Storage at higher temperatures and high humidity may reduce the shelf life.
Product must be protected from frost

Packaging and Ordering

Supplied in: 3 litre pail

SAFETY DATA
SDS No 219

Issue 4 August 2006

LIQUID COMPONENT

1.IDENTIFICATION OF THE SUBSTANCE

Product Name: C Liquid Component
Use: Cement based anchor system

2. COMPOSITION / INFORMATION ON INGREDIENTS.

Redisperable polymer liquid

3. HAZARDS IDENTIFICATION

On available data the component is not classified as hazardous

4. FIRST AID MEASURES

Eye Contact
Rinse immediately with water for at least 15 minutes. If irritation persists get medical attention.
Skin Contact
Wash with soap and water.
Inhalation
Move into fresh air.
Ingestion
Wash mouth with plenty of water. **DO NOT** induce vomiting. In case of spontaneous vomiting ensure vomit can drain freely to avoid suffocation. Seek medical attention.

5. FIRE FIGHTING MEASURES

Component as supplied is water based and non flammable. The unmixed dried polymer is flammable
Suitable Extinguishing Media
All extinguishing media are suitable.
Exposure Hazards
Prevent contaminated water from entering drains, soil or surface water. Dispose of contaminated water, soil according to local and national regulations. Release of toxic fumes may occur. Fire fighters should wear self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Wear suitable protective clothing, gloves and eye/face protection.
Environmental Precautions
Prevent contamination of soil, drains and surface water.
Methods for Cleaning
Take up liquid with absorbent inert material. Dispose of as waste.

7. HANDLING AND STORAGE

Handling
Ensure adequate ventilation. Wear suitable protective clothing and eye/face protection.
Storage
Keep in original container. Keep at room temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Protective Measures
No special measures required.
Occupational Exposure Limits
None assigned.
Respiratory Protection
In case of insufficient ventilation wear suitable respiratory equipment.
Hand Protection
Wear suitable gloves (eg PVC).
Eye Protection
Wear suitable safety glasses to BSEN 166.
Skin Protection
Wear overalls and closed footwear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Melting Point/Range:	N/A
Boiling Point/Range:	100°C approx. as water
Oxidising Properties:	N/A
Autoflammability:	N/A
Solubility in Water:	Miscible in all proportions
Vapour Pressure:	As water
Partition Coefficient:	N/A
Explosive properties:	N/A
Appearance:	Milky white liquid
Odour:	Faint aromatic
Density:	1.0 approx. as water
Flashpoint:	N/A
Ignition:	N/A
pH value:	6.5 - 7.0
Viscosity:	1.0 mPas approx. as water

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to avoid:	None known
Materials to avoid:	None known
Hazardous Decomposition Products:	None

11. TOXICOLOGICAL INFORMATION

Long term experience of the use of this product type indicates low danger to health when handled under industrial conditions.

Health Effects

Eyes
Can cause irritation

Skin
Can cause irritation

Inhalation
Can cause respiratory irritation

Ingestion
Irritation to the mouth, throat and digestive tract.

Chronic
Repeated skin contact can lead to skin disorders

Other
None known

12. ECOLOGICAL INFORMATION

Prevent contamination of soil, drains or surface water.

Mobility: Mobile liquid
Solubility: Miscible in all proportions
Persistence and Degradability:
The product will degrade only slowly in the environment
Bioaccumulative Potential:
There is no known evidence of a tendency for bioaccumulation

13. DISPOSAL CONSIDERATIONS

For large quantities disposal must be carried out under guidance from local and national legislation.
Small quantities can be disposed of via a licensed waste contractor.

14. TRANSPORT INFORMATION

Not classified as hazardous for transport.

15. REGULATORY INFORMATION

Symbol: None
Risk Phrases: None
Safety Phrases:
S1/2 Keep locked up and out of the reach of children. S23: Do not breathe vapour. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28 After contact with skin, wash with plenty of water. S37/39 Wear suitable gloves and eye/face protection.

16. OTHER INFORMATION

These data sheets are given in connection with the product being used for the purposes outlined in the Product Technical Data Sheet. Use of the above product for other purposes may result in risks not given above.

If the product is to be used by a third party at work it is the duty of the initial recipient to ensure that the third party is supplied with the data given above.

Employers have the duty to inform employees and others who may be affected of any hazards given in the data above and any precautions that should be adopted.

Users of the product should undertake their own assessment of work place risks as required by the Health and Safety Legislation.

Safety Data Sheet According to
Directive 91/155/EEC CHIP Regulations.