

Following are Tech-Dry's comments on Non-confidential Attachment G-1 to the visit report of BASF Construction Chemicals Australia Pty Ltd.

SIKA AUSTRALIA

Data Sheet Extract

SikaPaver WP

Hydrophobic efflorescence control admixture

Description: SikaPaver WP is a specially designed admixture to improve the quality and appearance of finished concrete pavers and other machine processed concrete products. Formulated with unique chemistry of polymeric silicone compounds and efflorescence reducing chemicals.

Dose rate: 200 – 2000ml per 100kg cementitious material.

Material Safety Data Sheet Extract

1. Identification of the substance/preparation and company

Product name SikaPaver WP

Manufacturer/supplier information

Manufacturer/supplier:	Sika Australia Pty Ltd
Street/postbox:	55 Elizabeth Street
Town/City and Post Code:	WETHERILL PARK N.S.W.
Country:	AUSTRALIA

2. Composition/information on ingredients

Chemical characterization
Water thinnable siloxane

Tech-Dry comments:

SikaPaver WP is a silicone emulsion which contains siloxane (it is believed to be polydimethylsiloxane). In the broad aspect, according to the definition in the Tech-Dry anti-dumping application, it would be regarded as "like-goods". However, a siloxane emulsion is used in many applications including concrete industry mainly as lubricants and release agents etc. This can be seen from the Sika product information which claims that: "...improve workability and finishability as well as appearance; plasticizes for a better slick; reduce tear and wear on machinery; and higher production rates etc..." The hydrophobic effect (water-repellent) is also obtained but such hydrophobicity is, however, not durable for concrete. Polydimethylsiloxane is not alkali stable. Highly alkali stable silicone such as octyltriethoxysilane is required as the key ingredient in order to achieve long term water-repellency and efflorescence reduction effect.

We have not seen SikaPaver WP being used widely in the concrete block and paver industry in Australia as an admixture for water-proofing and reducing efflorescence. We have also not seen SikaPaver WP being a competitor product to Tech-Dry Block Emulsion. Therefore, we regard SikaPaver WP being not "like-goods" in this case.

W R GRACE

Data Sheet extracts. No MSDS's available.

Darapel®

Integral Water Repellent Admixture for Concrete

Description

Darapel® admixture is a stable dispersion of stearate and other water repellent compounds that is added into ready mixed concrete during mixing.

Where it is Used

Darapel forms an internal barrier against water transmission in mixes used for ready mixed or precast concrete.

Benefits and Advantages

The addition of Darapel will reduce the amount of water that permeates through the concrete.

Reducing the passage of water will provide beneficial advantages by:

- Increasing resistance to weathering - wetting and drying - freezing and thawing
- Increase resistance to chemical attack
- Reduce the potential for efflorescence

Dose Rate: 190 – 390ml per 100kg cementitious material.

Tech-Dry comments:

Darapel® is a fatty acid-based product containing calcium stearate dispersion which is not regarded as "like-goods" according to the Tech-Dry anti-dumping claims.

OPTEC® EC-180C

Description

OPTEC® EC-180C admixture helps control primary efflorescence by reacting with alkaline salts before water can solubilise them. It is formulated as a ready-to-use admixture to enhance the quality and appearance of masonry units. OPTEC EC-180C can help in maintaining the colour intensity of decorative masonry units, and pavers.

Product Uses

OPTEC EC-180C admixture has been especially designed for the production of concrete blocks and pavers. However, it can also be used in other manufactured low or zero slump machined concrete products such as segmental retaining wall units.

Advantages

- Manages Primary Efflorescence
- Maintains Colour
- Superior Surface Finish

Dose rate: 195 – 650ml per 100kg cementitious material.

Tech-Dry comments:

OPTEC® EC-180C is a formulated product containing surfactants and fatty acid-based materials. It does not contain any silicones and is therefore not regarded as "like-goods" according to the Tech-Dry anti-dumping claims.

OPTEC® EC-250

Multi-Use Efflorescence Control Admixtures

Description

OPTEC® EC-250 is an innovative admixture developed by Grace Construction Products. OPTEC EC-250 was developed to enhance the quality and appearance of concrete pavers and other low slump concrete products. OPTEC EC-250 provides excellent mix plasticity and machinability. OPTEC EC-250 can enhance colour dispersion and help minimize efflorescence.

Dose rate: 400 – 800ml per 100kg cementitious material.

Tech-Dry comments:

OPTEC® EC-250 is a formulated product containing surfactants and calcium stearate dispersion. It does not contain any silicones and is therefore not regarded as "like-goods" according to the Tech-Dry anti-dumping claims.

CEMENTAID

Data Sheet extracts. No MSDS's available

Cementaid Efflor-X

Efflorescence Control Admixture for Cement Based Pavers, Blocks & Mortar Beds

Permanent protection against unsightly efflorescence emanating from cement based pavers, tiles and blocks, and from mortar or tile beds.

Dose rate: 1 – 2.5 litres per 40kg cement (2500 – 5000ml per 100kg cementitious material).

Tech-Dry comments:

Cementaid Efflor-X is believed to be a fatty acid-based material. The product is believed to be a retail product supplied for general concrete applications. We have never seen this product being widely used in the concrete block and paving industry in Australia. We regard Cementaid Efflor-X not being "like-goods" for the Tech-Dry anti-dumping claims.

ABILITY BUILDING CHEMICALS

Data Sheet extracts. No MSDS's available

Efflorein® Mark 2

Efflorein® Mark 2 is a ready-to-use, high-solids, easily dispersible, flowable off-white powder admixture for cement-bound materials. It has been specifically developed to control the occurrence of efflorescence and the problems associated with salt bloom in Portland cement concrete, mortar and grout products, while also helping to improve a range of other concrete performance characteristics in both the plastic and hardened states.

Dose rate: 1 – 1.5% (± 0.5%) by weight of total cementitious material.

Tech-Dry comments:

Efflorein® Mark 2 is believed to be an oleic acid-based product. Again, this product is believed to be a retail product supplied for general concrete applications. We have never seen this product being widely used in the concrete block and paving industry in Australia. Therefore, we regard Cementaid Efflor-X not being "like-good" for the Tech-Dry anti-dumping claims.

THOMSON WHITE AUST P/L

Data Sheet extracts. No MSDS's available

AFTEK

waterproofer No 2

Economical water resisting admixture for concrete and masonry

DESCRIPTION

Integral water resisting admixture for concrete and masonry, above or below ground. Recommended for use where coloured mortar or integral floor colours are used.

Dose rate: 1 Litre per 40kg cement (2500ml per 100kg cementitious material).

AFTEK**No. 2 Paste**

Water resisting admixture for concrete and masonry

DESCRIPTION

Integral water resisting admixture for concrete and masonry, above or below ground. Recommended for use where coloured mortar or integral floor colours are used.

Dose rate: 1 Litre per 40kg cement (2500ml per 100kg cementitious material).

Tech-Dry comments:

Both AFTEK products are believed to be fatty acid-based materials. These product are believed to be retail water-repellent agents supplied for general concrete applications. We have never seen these products being widely used in the concrete block and paving industry in Australia. Therefore, we regard AFTEK products not being "like-goods" for the Tech-Dry anti-dumping claims.

BASF CONSTRUCTION CHEMICALS AUSTRALIA PTY LTD**Data Sheet Extract****Rheomix 790**

Integral or surface waterproofer for wet or dry cast concrete

DESCRIPTION

Rheomix 790 is a highly penetrative, low viscosity emulsion for surface application to concrete, masonry and block work surfaces, or for use as a high performance integral waterproofer for wet or dry cast concrete. On curing it provides a waterproof surface/product with minimum effect on the original appearance and texture.

FEATURES AND BENEFITS

- Preserves original appearance
- Stops or reduces efflorescence
- Reduced water permeability
- Improves colour retention

Dose rate: Addition rate will depend on the type of product, mix and degree of waterproofing required.

A typical addition rate would be in the range 0.5% to 2.0% by weight of cement.

Users should carry out trials with their mix to achieve the optimum dosage.

Material Safety Data Sheet Extract**3. COMPOSITION / INFORMATION ON INGREDIENTS****INGREDIENTS**

Chemical Name	CAS Number	Proportion
Octyltriethoxysilane	2943-75-1	10 -< 30%

PUBLIC RECORD

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151

Tech-Dry comments:

Rheomix 790 is a silicone emulsion containing octyltriethoxysilane used as a surface penetrating water repellent sealer for treating masonry building substrates. It is also claimed that it can be used as a water repellent admixture for concrete. In broad terms according to the definition in the Tech-Dry anti-dumping application, it would be regarded as "like-goods". However, there are quite few silicone emulsions either imported or manufactured in Australia (like Tech-Dry GPE emulsions) which are mainly designed as surface water repellent penetrating sealers which can, of course, be used as concrete admixtures particularly if they contain octyltriethoxysilane. However, we have never seen these silicone emulsions which include Tech-Dry GPE emulsions and Rheomix 790 being used widely as admixtures for concrete blocks and pavers in Australia. Therefore, we regard Rheomix 790 not being "like-goods" in this case.

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