

PLAKA - COLMARUB "S"

Hydrophilic bentonite strip

REF 05.05.10 - Version V01 - 13/08/2020



Prescriptions of the producer

Description

COLMARUB "S" is a hydrophilic bar made of sodium bentonite and butyl rubber. Due to the hardening phase of the concrete and the related shrinkage, there will appear small bursts and holes in the construction-and cold joints, where the water can penetrate. In contact with water the COLMARUB "S" will swell to about 4 times its original volume. So the hydrophilic bentonite strip will fill up concrete voids and cracks.

Application fields

COLMARUB "S" is designed for preventive sealing of construction joints, cold joints and working joints in concrete and reinforced concrete constructions.

COLMARUB "S" is also designed for waterproofing around transits, pipe penetrations, pipe throughputs, sewer joints, ventilation tubs, cellar holes, ...

In all cases, COLMARUB "S" must be entirely confined in concrete and the minimal concrete cover is 7-8 cm of reinforced concrete.

To ensure the continuity of the joint, a 5 to 10 cm overlap is recommended and both ends are firmly pressed together.

COLMARUB "S" can be applied horizontally or vertically, but can not be used in expansion joints.

It is important that Colmarub "S" is in contact with the first phase concrete throughout its length. To do this, in case of irregular concrete, use Colmastic or MS-Fixer to improve the contact between COLMARUB "S" and the concrete. Then, apply the Colmasteel on top of the COLMARUB "S", fixed every 25 cm.

Properties

Mechanical properties	
Swelling capacity in contact with rain water	To about 350% more than its original volume
Swelling capacity in contact with cement laitance	To about 150% more than its original volume
Density	Approx. 1.41 kg/dm ³
Weight	Approx. 0.67 kg/m
Expansion pressure in complete confinement	≥ 0.51 N/mm ²
Hydrostatic pressure resistance	Up to 40 m water column, tested until 4 bar
Mini bending radius in corners	50 mm
Operating temperatures	From 0°C to 70°C
Odour	Odourless

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Chemical resistance

In general, Colmarub "S" has a good resistance to acids, alkalis and most aqueous solutions. Care must be taken with aromatic oils and fuels, vegetable oils and strong aromatic solvents. Below an indicative list in function of the different types of products :

Chemical resistance	
Concentration 1-10 %	Resistance
Inorganic acids	N
Inorganic bases	N
<u>Organic acids/bases</u>	
Alcohol	N
Aldehydes	N
Amines	N
Esters	N
Ethers	N
<u>Aromatic hydrocarbons</u>	
Benzene	M
Toluene	M
Xylene	M
Solvent 100/150	M
Aliphatics (oils and fuels)	M
Halogenated hydrocarbons	M
Carbon disulfides	M
Nitrobenzene	N
Detergents and cleaning agents	N
Fats, biological oils and sugars	M

N = No effect – the performance is not affected

M = Moderated effect – The performance may be affected under long-term exposures.

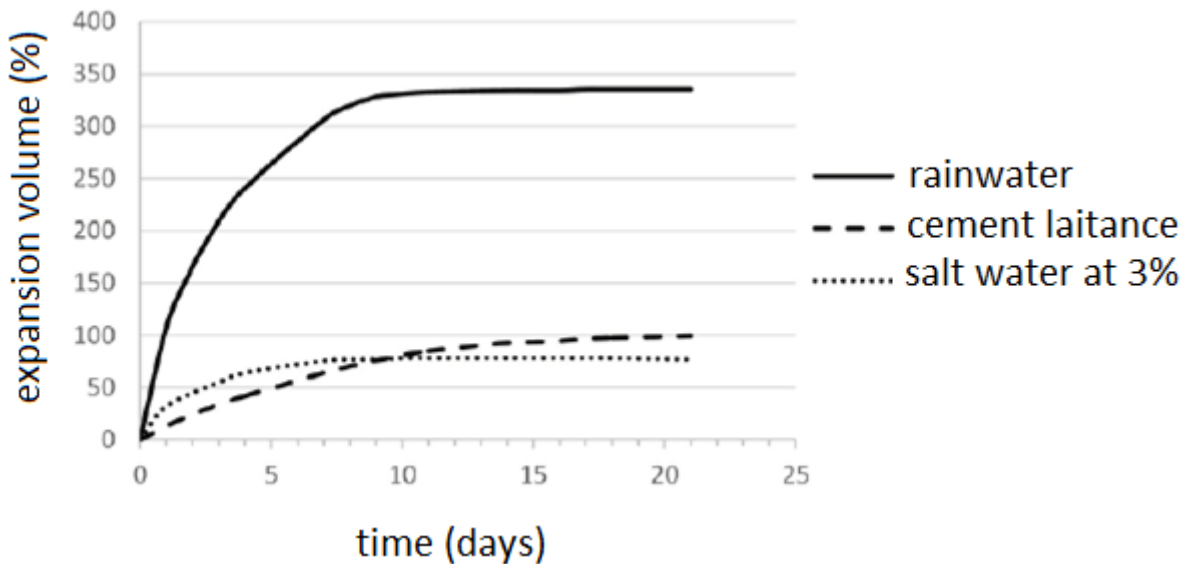
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Swelling curve of the Colmarub "S"



The durability and performance of COLMARUB "S" will exceed the design life of the structure. COLMARUB "S" bar is made of inert rubber.

For special applications, such as contact with strongly polluted water or chemicals, it is recommended to consult your sales representative.

In case of contact with salt water, the use of a special COLMARUB "S" product (see technical datasheet of the COLMARUB "S" SALT).

Dimensions

Appearance :

Blue, rectangular plastic strip of approx. 20 by 25 mm, in rolls of 5 metres length.

Storage :

Colmarub "S" should be stored under cover, clear of the ground.

Protect the materials from all sources of moisture and frost. Shelf life is unlimited in correct storage conditions.

Material dimensions					
Article	Picture	Code	pc/Box	units/pallet	Weight (Kg/1)
Strip COLMARUB "S" 20 x 25mm		DNBSH	30 m (6 rolls of 5 m /box)	36 boxes/pallet (= 1080 m)	0.67 /m Weight/ box: ca. 20.1 Kg net / ca 23 kg gross.

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Accessories					
Article	Picture	Dimensions	Code	units/Box	Weight (Kg/1)
COLMASTEEL steel wire profile		Steel wire mesh profile for Colmarub "S". Mesh grid: 10.6 by 10.6 mm. Section: 25.5mm x 9 mm. Length : 1 metre Packaging : 30 x 1 m	DNHT	30 m	0.06 /m
COLMASTIC Mastic for levelling the surface		Mastic for levelling the surface Colour : blue Packaging : plastic bucket 5 kg	DNC	5 kg	1.00/kg
Adhesive mastic for Colmarub "S" : MS FIXER		Sausages of 400 cm ³ = 600 g. 20 sausages per cardboard box. 48 boxes per pallet. Design consumption MS Fixer Smooth concrete : 60 g/m joint. Rough concrete : 120 g/m joint. Consult the Material Safety Data Sheet.	DNCOLW	20	0.6 kg/unit

Test report

The product has been tested according to the report P-5045/782/14/MPA-BS.
This test report is available on simple request.