

MARUTI HYDROPHILIC SWELL BAR

DESCRIPTION:

Maruti swell bar is used for sealing of concrete construction joints, precast concrete segments, proofing of shafts and opipe penetration subjected to continuous or intermittent hydrostatic pressure. It swells in contact with water to seal the gaps and pores in a concrete joint. It can swell from 300% to 450% depends upon the quality.

USES:

1. To seal construction joints.
2. To seal construction joints in tunnel segments, precast concrete, cable ducts etc.
3. To seal pipe & steel work penetration through walls and slabs.

ADVANTAGES:

1. Easy and secure application.
2. Good swelling properties on contact with water.
3. Good elastic properties.
4. Permanent water resistance, no leaching.
5. Non-polluting and ecological user friendly system.
6. Need no hardening time.



Available Size*: Type (mm)	Width (mm)	Thickness (mm)
MTSW 1010	10	10
MTSW 2003	20	3
MTSW 2005	20	5
MTSW 2006	20	6
MTSW 2010	20	10
MTSW 2020	20	20
MTSW 2030	20	30
MTSW 2040	20	40
MTSW 2503	25	3
MTSW 2505	25	5
MTSW 2506	25	6
MTSW 2510	25	10
MTSW 2520	25	20
MTSW 2525	25	25
MTSW 3005	30	5
MTSW 3006	30	6
MTSW 3105	31	5
MTSW 3106	31	6

* We also manufacture as per end user requirement.

HYDROPHILIC SWELL BAR

- ❖ Colour - Blue, Red, Black or as per requirement.
- ❖ Packaging - 25-100 meters rolls or as per requirement.
- ❖ Maruti can also do private branding in specific colours and sizes.

TECHNICAL DATA:

PHYSICAL PROPERTIES:

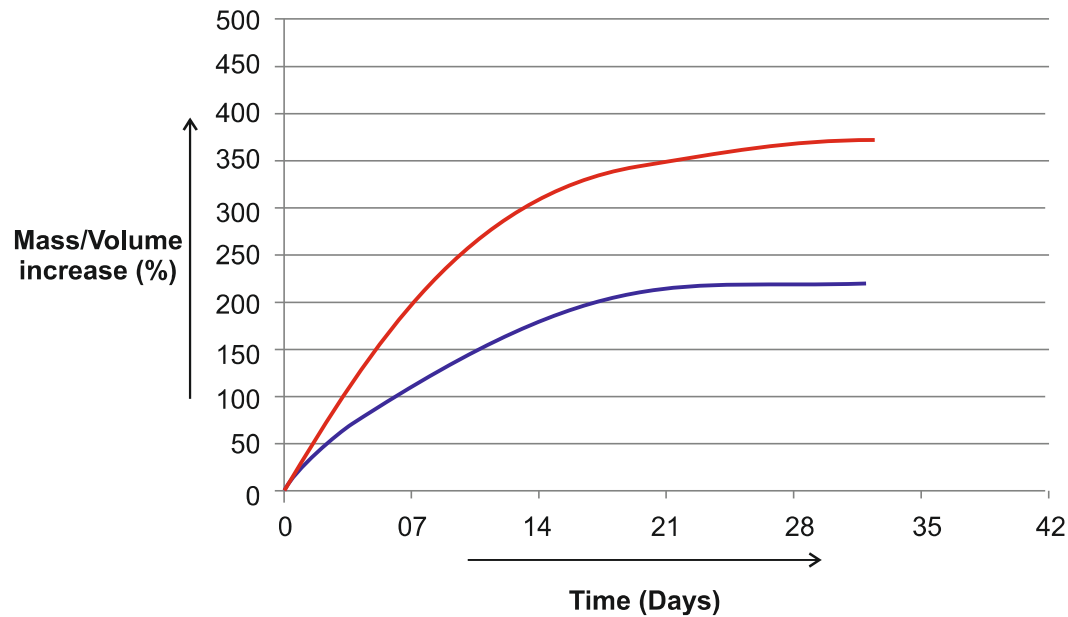
Tensile strength	>8 Kgf/cm ²
Specific density	<1.4> gm/cm ³
Hardness	35-45 (Shore A)
Elongation at break	>250% min.
Swelling rate	300% vol. in pure water 14 days & 175% vol. in sea water
Service temperature range	-15°C to +55°C
Change of volume	7 days in tap water ≥ 200% 14 days in tap water ≥ 300
Resistance To hydrostatic water pressure	Up to 6 Bar(60 mtr.)

Classification	-	+	Resistance
	-		No Resistance
	+/-		Limited Resistance

Chemical Compound	Classification	Remarks
Sulphuric acid	-	
Sea water	+	
Benzyl alcohol	+/-	Resistant in case of accident for 72 h
Ethyl acetate	+	Accelerated expansion
O-Xylene	+	Accelerated expansion
m-Xylene	+	Accelerated expansion
Toluene	+	Accelerated expansion
Petrol	+	
Diesel	+	
Kerosene, Jet fuel	+	
Minceral oil	+	
Liquid manure	+	
Ethylene glycol	+	
Ethanol	+	
Methanol	+	
Acetone	+	Strong accelerated expansion
Ammoniac solution 32%	+	
Sodium hydroxide solution	+	
2-Butoxyethanol sol. 10%	+	
n-Hexane	+	
Acetic acid 96%	+	Accelerated expansion

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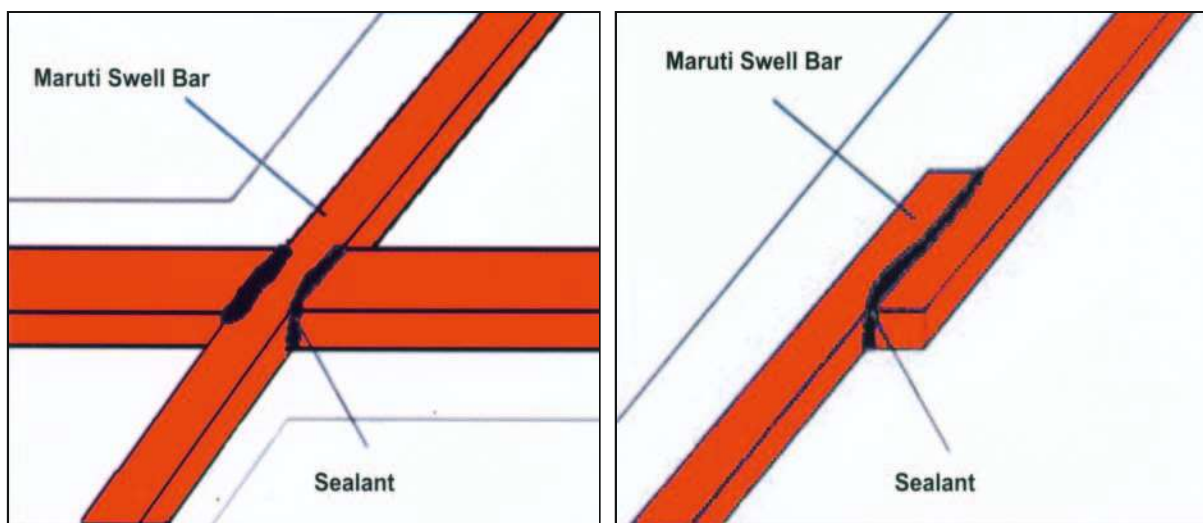
Hydro Swelling Graph



Red graph = Swelling in neutral drinking water
Blue graph = Swelling in 3% sea water

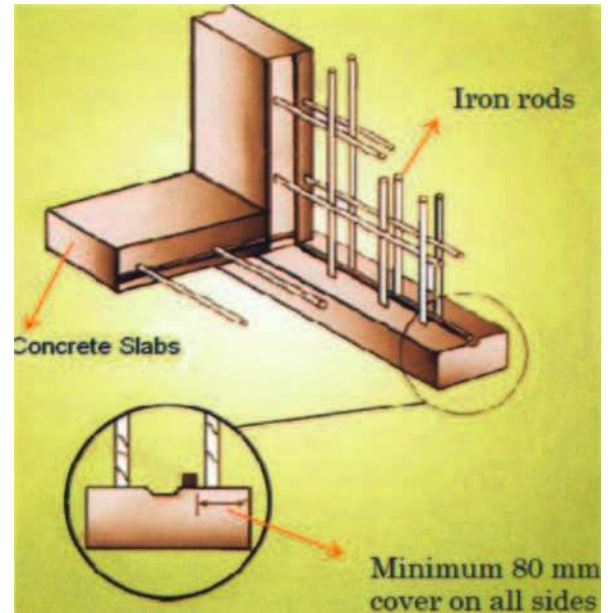
SCALING OF CONSTRUCTION JOINTS

Maruti Swell Bar Profiles can be fixed with the help of appropriate sealant for lap over parts and joints.



METHODOLOGY OF HYDROPHILIC SWELL BAR:

1. All joints to be waterproofed with Maruti Swell Bar must be first cleaned free standing water and sharp protrusion must be avoid.
2. Concrete surface should be at least 24 hours hold fully set, don't apply on concrete which is wet or not properly set.
3. For normal joint widths of 200-400 mm Maruti Swell Bar is placed in the middle of the joint.
4. Maruti Swell Bar are glued into the joints with a special adhesive on the vertical surface and temporally fixed on the joints with a nail untill the adhesive dries.
5. Swell Bar must always be secured so that the water bar is in close contact with the surface the substrate otherwise the full watering effect will not be obtained.
6. After placing Swell Bar the joint area should be kept clean and free of loose dirt & stone before concreting, the min. concrete over on swell bar should not be less than 80 mm incase of less concrete cover crack may appear on the surface due to swelling force.



STORAGE:

- Store in a cool and dry place in the original packing to prevent from moisture and premature swelling.

SAFETY PRECAUTIONS:

- Use gloves to avoid rare allergic reactions.
- Do not reuse containers for storage of consumable item.

