MCC LIMPOPO

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MULTISEAL 1145
Polyurethane Sealant

Description
MULTISEAL 1145 a twin pack polyurethane sealant which fully complies with SABS 1077 Type II for use on aluminum and mortar surfaces. When mixed it cures to form a tough rubber like seal. It exhibits not only excellent expansion and contraction characteristics, but also very good resistance to weather, water and many of the commonly encountered chemicals.

Typical Applications
* MULTISEAL 1145 has excellent adhesion to both porous and non porous substrates. Its resistance to biodegradation, ease of application in vertical and horizontal joints, fast set and retention of elastic properties makes the product highly versatile for many sealing problems.
* It may be used in both horizontal and vertical expansion joints of concrete, plaster, brick, and stone, steel, ceramic and it is designed for use in traffic areas, sewage treatment works, water reservoirs, channels, around service pipes, and between precast concrete panels.

Advantages
* Rapidcure
* Good adhesion
* Large movement accommodation with excellent recovery factor
* Ease of application
* Resistance to anaerobic and aerobic bacteria
* Good abrasion and chemical resistance
* Colours available

Composition
A two-component sealing compound based on a polyurethane and blocked isocyanate groups and blended with fillers and plasticizers. The product cures after mixing to form a tough, durable and flexible seal. Note: Available in low and high viscosity grades.

Typical Properties

Specific Gravity:	1.4
Service temp:	20°C to 90°C
Application temp:	5°C to 40°C
Volume Solids:	99%+-1%
Mix ratio:	Use as supplied
Pot life:	1.5 hours at 20°C
Hardness shore "A" 25° C:	±25
Tack free time:	<72 hours
Cure:	Full cure 7 days
Movement Accommodation:	25% joint width
Chemical resistance:	Most dilute chemicals 9
Storage life:	months store at ± 5°C to 35°C

Adhesion on glass, cement & mortar: **4kN/m**

Joint Design
Horizontal joints: The joint should, wherever possible, be designed to a minimum depth of 12mm and to a maximum of 25 mm:

Width mm	Depth mm	Litres / Linear Metre
12	12	0.144
15	15	0.225
20	15	0.400
25	20	0.500
25	25	0.625
30	20	0.600
40	20	0.800
40	25	1.000

Vertical joints:
Minimum depth - 6 mm Maximum depth: 25 mm. Apart from the 6mm wide by 6mm deep joint, it is an advantage to maintain a width / depth ratio of 2:1. This will ensure that the movement, when it occurs, will be taken up in the sealing compound itself and no undue stress will be set up on the joint faces with the possibility of impairing adhesion.

Note: depth must not exceed the width.

Width mm	Depth mm	Litres / Linear Meter
6	6	0.036
12	6	0.072
20	10	0.200
25	12	0.300
30	15	0.450
40	20	0.800

Where resistance to hydrostatic pressure is required the depth of sealant may be increased where joints have been constructed using compressed fibre filler boards, these should be raked out down to the required depth as per joint design criteria. A bond breaker strip of polyethylene film backing cord should be inserted into the joint to prevent the sealing compound from adhering to the filler board. This will ensure that there will be no restriction to the extension and recovery capabilities of MULTISEAL 1145.

Where fully removable forms have been used to construct the joints, the correct depth, as per joint design criteria, should be established by installing a non-adhering polyethylene cord into the joint prior to sealing. Cords should be slightly oversize to enable them to be placed under compression Care should be taken not to twist or deform the support strip as this will result in an erratic joint depth

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Movement Accommodation: Moving joints - 30% of the original joint width. Deformed joints - 60% of the original joint width during installation, care should be taken to ensure the joint be within 15-17% in either extension or compression.

Direction for Use
Priming: All surfaces should be clean, dry sound and free of dust contamination or any weak cement laitance. Surfaces should be parallel and of the correct dimensions MULTIPRIME 1100 should be used on all glass, ceramic or masonry surfaces and the sealant applied within one hour. In areas where sealant is to be permanently immersed in water the surfaces should be treated with MULTIPRIME 1308 and sealed within 3 hours after application of primer. Metals should be primed with MULTIPRIME 1104.

Note: For water retaining structures use MULTIPRIME 1308 (Epoxy Clear Primer)

Mixing: Transfer the contents of the plastic bag (which is packed inside the container) into the base tin and mix thoroughly. Mixing is best achieved using a flat bladed stirrer coupled to a slow speed electric drill. Mix for 4-8 minutes paying particular attention to the sides of the container. When thoroughly mixed both components should be completely interspersed and the material is of uniform colour. Mixing by hand will require more time and is not recommended for gun grade sealants.

Application: A closed barrel gun should be used and the material applied ensuring that there is complete contact between the sealant bead and the walls of the joint.

Finishing: To displace air bubbles, as an aid to good adhesion and to ensure correct surface profile, the gun grade sealant should be finished with a slightly concave profile. Use a rounded spatula or similar object to tool the sealant immediately after application.

Cleaning: Immediately after use. Clean all equipment with MULTI THINNERS 1600.

Watchpoints
* Curing agent is slightly caustic.
* Wear protective gloves and clothing.
* Protect eyes from splashes whilst mixing.
* Mix only the amount that can be used immediately.
* The product is not resistant to strong solvents or brake fluid.

Packaging
Supplied in 2 and 4 litre kits

Quality Assurance
MCC LIMPOPO's production and testing programmes comply with local and international testing standards.

Updates:
This data sheet supersedes all previous issues prior to this date: 01/11/98.