BASF
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MASTERFLEX J SEAL

High performance watertight expansion joint system

Description
The MASTERFLEX J SEAL expansion joint system comprises a neoprene profile which is fixed in position with a two-part epoxy adhesive type CONCRESIVE 2200. The profile is occasionally bonded to WABOCRETE II nosings but may also be fixed directly to suitable concrete or steel substrates.

A profile glue is used for all neoprene to neoprene bonding. Positive air pressure is an essential feature of the system and is necessary to inflate the profile during installation to ensure full bonding and a watertight system.

Uses
MASTERFLEX J SEAL expansion joint systems are 100% watertight, versatile and simple, enabling effective sealing in a wide range of applications including road bridges, car park structures, commercial buildings, stadia and water management structures. MASTERFLEX J SEAL expansion joint systems will accommodate movements upto 100mm.

Benefits
- Reliable and durable
  - Inflation during installation ensures a completely watertight bonded system
  - Wabocrete II polyurethane mortars nosings with proven reliability
- Versatile performance
  - Can accommodate 100% movement
  - Differential, rotational and shear movement accommodated
  - Wide range of profiles to meet different gap and movement requirements.
  - Fabricated on site to suit site conditions
- Environmentally friendly
  - Cold applied system

Packaging
MASTERFLEX J SEAL neoprene profiles are supplied in lengths to suit project requirements and can be supplied in continuous lengths.

CONCRESIVE 2200 is available in 3kg units.

Typical properties* - Adhesive

Colour:	Cement grey
Mixed density:	1758 Kg/m³ at 25°C
Flashpoint:	N/A
Compressive strength to ASTM D695:	60 N/mm² at 7 days
Bond strength:	Greater than that of the concrete.
Pot life:	at 25°C : 1 hour 45 minutes at 40°C : 45 minutes
Tack free time:	at 25°C : 7 hours at 40°C : 2 hours 15 minutes
Full cure:	at 25°C : 5 days at 40°C : 3 days

Physical properties* - Rubber

Shore A Hardness ASTM D2240 / BS 903 Part A26	65
Specific Gravity ASTM D297 / BS 903 Part A1	1.45
Tensile strength ASTM D412 / BS 903 Part A2	6N/mm²
Elongation at break ASTM D412 / BS 903 Part A2	300%
Compression set (22 hours @ 100°C) ASTM D395B / BS 903 Part A6	40%
After ageing properties ASTM D573 / BS 903 A19	24 hours @ 100°C
Change in hardness ASTM D2240 / BS 903 Part A26	6
Change in tensile strength ASTM D412 / BS 903 Part A2	-25%
Change in elongation ASTM D412 / BS 903 Part A2	-35%

Product data
Two different types of MASTERFLEX J SEAL neoprene profile are available and each is available in a range of sizes to meet particular project requirements.

- J-type profiles with 100% movement capability are used for dynamic movement, for example for bridges, viaducts, tunnels, car park structures and water management applications.
- FJ-type profiles are used for movement applications that require a flush-to-flush system, for example pedestrian traffic areas, industrial buildings, airport terminals and car park structures, but are also suitable for most J-type profile applications.

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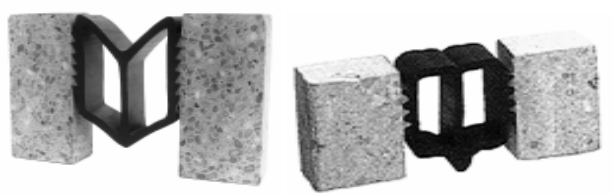
The different profiles are illustrated in Figure 1.

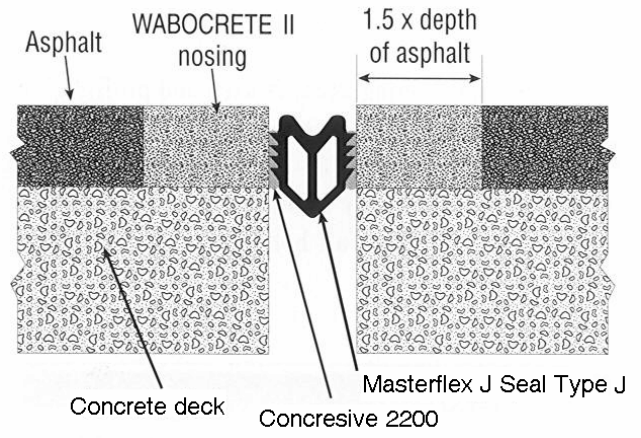
Figure 1 : MASTERFLEX J SEAL neoprene profiles



J-Type FJ-Type

A section through the J-type profile bonded to Wabocrete II nosings is shown in Figure 2 (not in scale).

Figure 2 : Section through a MASTERFLEX J SEAL J and FJ-type profile



Storage

MASTERFLEX J SEAL neoprene profiles should be stored by coiling without kinking or laid in lengths without deformation. They should be kept free from contamination prior to installation as contamination may impair the performance of contact products such as adhesive and profile glue.

Installation

MASTERFLEX J SEAL is a specialist expansion joint product which is only to be installed by contractors that are trained and approved by WBA.

The primary operation typically involved in the installation are: creation and preparation of a recess, aplication of WABOCRETE II nosings if needed, preparation of the MASTERFLEX J SEAL profile (including forming kerb upstands etc.) deflation of the MASTERFLEX J SEAL profile, application of adhesive to the prepared nosing, positioning of the MASTERFLEX J SEAL profile, inflation of MASTERFLEX J SEAL profile with air, curing of the adhesive and release of air pressure.

When considering fixing the MASTERFLEX J SEAL profile directly to concrete or steel substrates, the conditions of such substrates is essential to the proper performance of the installed MASTERFLEX J SEAL expansion joint system. It is strongly recommended that you contact your local WBA Representative sales office for advice when considering fixing MASTERFLEX J SEAL profiles to substrates.

Chemical resistance

Water	Excellent
Acid	Very Good
Alkali	Very Good
Ketones	Very Good
Alcohols	Very Good
Synthetic oils	Good
Oxidation	Very Good
Fuels	Excellent
Weather	Very Good

Appropriate health and safety advice can be found in the Material Safety Data Sheets.

Health and safety

Users are advised to wear gloves and eye protection when installing MASTERFLEX J SEAL.

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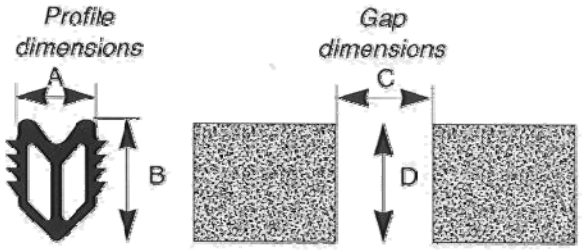

Key dimensions [b]

Type	Profile dimensions		Gap dimensions		Joint opening : movement range		
	Width A	Height B	Width C [c]	Height D [d]	Min.	Max.	Total
J12	12	12	12	18	6	18	12
J15	15	15	15	22	7	22	15
J20	20	20	20	30	10	30	20
J25	25	33	25	30	13	38	25
J50	50	70	50	80	25	75	50
J75	75	100	75	135	38	113	75
J100	100	129	100	140	50	150	100
FJ12	12	12	12	18	8	15	7
FJ15	15	15	15	22	10	20	10
FJ20	20	20	20	30	12	28	16
FJ25	25	31	25	50	17	34	17
FJ50	50	63	50	90	34	67	33
FJ75	75	95	75	120	50	100	50
FJ100	100	127	100	150	67	133	66

[b] dimensions quoted to the nearest mm. [c] maximum at time of installation. [d] minimum recommended depth

09/2002 MBT-ME revised 06/2003

* Properties listed are only for guidance and are not a guarantee of performance.

BASF Construction Chemicals UAE LLC P.O. Box 37127, Dubai, UAE
Tel: +971 4 8851000 Fax: +971 4 8851002
www.BASF-cc.ae e-mail: marketingcc.mideast@BASF.com

Certificate No. 963680 Certificate No. 945787 Certificate No. 772556

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BASF Construction Chemicals UAE LLC P.O. Box 37127, Dubai, UAE

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