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Authorised

Contractor

GCP SENTINEL[®] EMR PART 8: MODULAR EXPANSION JOINT (TYPE 6 ELASTOMERIC IN METAL RUNNERS)

SENTINEL® EMR ist an Elastomeric seal in metal rails type joint, designed for high wear situations on new and refurbishment projects. The carrier rails have special sinusoidal shaped reinforcements welded to the rear face, which locks the carrier rails into the Sentinel® Nosing Mortar. The expansion joint requires no mechanical fixing to the substrate. It is available with a range of load bearing seals to accommodate varied movement and gap widths, up to 150mm of horizontal movement.

 Bridge Deck
Expansion Gap
Eliminator® Membrane
Hydrostatic Pressure Relief
Sentinel® EMR Carrier Rail with Sinusoidal Reinforcement
Sentinel® EMR Elastomeric Seal
Sentinel® Nosing Mortar
Road Surface

Key Features

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- → Developed to withstand heavy volume trafficking on bridges and viaducts
- \rightarrow Complies with CD357 and ETAG032
- \rightarrow Rapid installation
- \rightarrow No mechanical fixings
- $\rightarrow\,$ Can be installed on both concrete and concrete substrates containing steel
- \rightarrow Can be installed one lane at a time
- $\rightarrow\,$ Suitable for expansion joint replacement or new works
- ightarrow Allows horizontal and vertical movement
- \rightarrow Waterproof
- \rightarrow Can be supplied with an in-joint drainage system and secondary membrane

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Movement range

	EMR35	EMR50	EMR80	EMR100	EMR150
Horizontal Movement	35mm	50mm	80mm	100mm	150mm
Vertical Movement	+/- 12mm	+/- 15mm	+/- 15mm	+/- 15mm	+/- 20mm
Joint gap at total Compression	25mm	30mm	30mm	40mm	50mm
Joint gap at mid-range	45mm	55mm	70mm	90mm	125mm
Joint gap at total expansion	60mm	80mm	110mm	140mm	200mm

Standard Nosing Dimensions

	EMR35	EMR50	EMR80	EMR100	EMR150
Minimum nosing width	120mm	120mm	140mm	160mm	200mm
Minimum nosing depth	60mm	60mm	70mm	70mm	70mm

Application

Primer

Prior to application of the Sentinel[®] Nosing Mortar FC the prepared substrate should be primed with the appropriate GCP primer. Refer to relevant datasheet.

Seals

Seals should be applied in one continuous length. Joints in the seal must be avoided. We recommend that the length ordered is at least 1 metre longer than the proposed joint length to allow for variations on site.

Sentinel® Nosing Mortar FC & Safetrack HW

Sentinel[®] Nosing Mortar FC should be mixed and applied in accordance with the Sentinel[®] Nosing Mortar FC datasheet. Safetrack HW, a HAPAS Type 1 High Friction surfacing system should be applied over the Sentinel[®] Nosing Mortar FC to enhance skid resistance.

Steel Rail Corrosion Protection

The steel rails are manufactured from structural grade steel (corrosion resistant weathering grade) and are provided with a temporary holding primer, ZED S94.

Coverage

Please refer to the relevant product datasheets for the coverage rates.

Health & Safety

Please refer to the safety data sheets for more info.

Packaging & Storage

Sentinel® EMR Seals: Types 35, 50 & 80 – 60Im rolls Type 100 – 40Im rolls Type 150 – 25Im rolls

Sentinel® EMR Rails: 3.75m length

All components of the sentinel EMR System should be stored off the ground in cool, dry, protected conditions, out of direct sunlight and in accordance with the relevant Health and Safety regulations.

Sentinel® Nosing Mortar FC should be stored below 25°C. Do not store near naked flames or foodstuffs. Stored in unopened containers, under the correct conditions the components have a minimum shelf life of six months. If product is more than 6 months old you must contact GCP before use.