AssaFlex

Manufacturer of Bridge Components

Elastomeric Expansion Joints

AssaFlex RE

Data sheets-1

Manufacturer of Bridge Components

Expansion Joints RE-Data Sheets/1

RE-280 – RE440 & RE 580 - 1100.

AssaFlex RE is "**Reinforced Elastomeric Expansion Joints"** / **www.assaflex.co.uk**.
They are manufactured in 8 different types to suit different widths of joints.

AssaFlex RE is a durable and versatile expansion joint system with unique properties such as puncture resistance with flexibility to withstand various pressures and movements.

Design Features

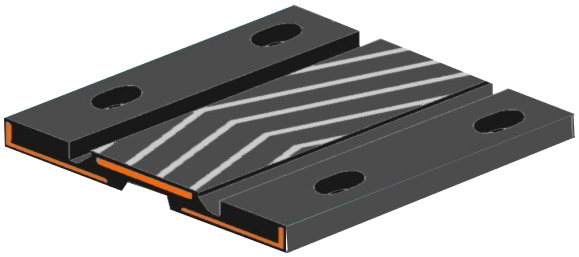
AssaFlex RE is formed from "Rubber compound and layers of shot blasted steel" forming a formidable membrane. Just before going through the vulcanisation process two different types of primers will be applied to form the Elastomeric Expansion Joints. On completion of the vulcanisation the modules are almost ready for use.

Movements

The modules are designed to accommodate total movements between 45mm to 320mm. In the case of RE280 this is ± 22.5, hence max movements 45mm.

(RE Type – 280-440)

In this type of design, the module is reinforced in three areas following the "***Central steel Framework"***, allowing the area under stressed to be distributed.



(RE: Type -580-1100)

In this design the module is reinforced in five areas and movements are distributed in four points following the ***Double Upper steel Frame***.

Fixing of the modules
There is another element in the design feature which is different from typical expansion joint modules in comparison with our competitors; there are 5 **No of fixings** per side of the modules, in total 10 No fixing per module per metre. This is unique to ***Assamrof*** products.

The modules are mechanically fixed by the use of Epoxy Resin with anchor bolts M16-M24 to the bridge deck or the abutments allowing the horizontal stresses to be transmitted through friction between the expansion joint and the concrete.

Locking system
The modules are designed to have a Tongue & Grooved interlocking system allowing the formation of continued transition membrane over the length of the joint, details B & C-data sheet/2 or in the AssaFlex catalogues or the web site.

Drainage
The grooves on the face of the modules form a free surface that allows and direct water drainage easily and safely.

Drainage Camber
The drainage camber will be same as that designed for the finished surface layer.

Anti skid;
The skid resistance of the AssaFlex RE is a function of the surface profile design.
The ridged/ribbed surface is located between two 30 mm wide channels, the grooved pattern and channels create an antiskid surface

AssaFlex RE can be used in Highways, roads between the bridge and abutments and car parks.

Benefits

- Designed to accept differential movement, rotational and shear.
- Flexible, allowing compression and expansion.
- Designed to improve traffic condition & reduce noise.
- 10 No fixings per one meter unit increasing durability of the unit.
- Rapid installation due to the segmental nature of the membrane.
- It is designed to cover different width joints.
- Anti-skid surface.
- Easy to use system.
- Can be installed one lane at a time.
- No need to fabricate on site.
- Oil based Chemicals and heat/flame resistance.

Quality Control

On completion of the production the products will go through a quality control inspection leaving the production line for packaging before leaving the factory.

Please for further details refer to Quality and care documents.

Handling of modules

When designing the ***AssaFlex RE***, the issue of weight of the units and handling of the units has been the foremost issue, hence the modules are produced in 1m lengths, with the exception of RE361 which is 1250mm.

Specifications

The following table shows the specifications that ***ASSAFLEX RE*** is being produced to.

N0	Property	Test Method	Unit	Test Result
1	Hardness	ASTM D/2240	Shore A	70 ±5
2	Tensile Strength	ASTMD/412	PSI-min	1900
3	Elongation at Break	ASTM D/412	%	390
4	Tear Strength	ASTM D/624	1 b/in	68
5	Abrasion	DIN 53516	mm3	85
6	Compression Set @ 24hr	ASTM /D/395	%	22
7	Brittleness	ASTM D/2137	-	Durable
8	Specific Gravity	-	Gr/cm3	1.35
9	Ozone Resistance	ASTM D/1171	After 72hrs @ at 40 deg C Exposure to 50 PPHM in Air sample 20% strain	No cracks
10	Heath Resistance	Up to 100 deg C	-	Result good to Excellent
11	Resistance to Oil based chemicals such as petrol & diesel	-	-	Result good to Excellent
Anchor Bolts are manufactured to: EN 20898 – CL 8.8 Zinc Plated				

Materials Specification

- Steel shall conform to ASTM 240 Type 204 with 2B finish.
- Compound: Two types;
  - NR Natural Rubber
  - CR Chloral Rubber