

## TRANSIFAL C-40

TRANSIFAL C-40 is a binder made up of modified elastomeric asphalt, for hot application.

Combined with selected aggregates with a specific granulometry it forms a flexible sealant able to absorb the movements of bridge deck movement joints, up to 40 mm ( $\pm 20$  mm) . When applied without aggregates, it can be used to seal fissures and joints.

### USE

- Important quantities of the product can be used to smoothen irregular substrates.
- It absorbs the loads produced by heavy road traffic.
- It is resistant to the most adverse atmospheric conditions.
- It is resistant to oil and petroleum derivatives.
- It absorbs the movements in the three dimensions that occur in the joint.
- It absorbs deformations and returns to its initial volume in a short space of time.
- Reopening to road traffic is possible after only a few hours which is a great advantage in case of roads in service.
- Very low noise level for being a continuous band.
- Easy and quick to install. The road will be only closed for a short period of time.



### DESCRIPTION

TRANSIFAL C-40 can be applied on bridge decks, parking decks, viaducts, etc. for the filling and sealing of cracks, fissures and joints in asphalt or concrete pavements. It can absorb the movements of bridge decks joints, up to 40 mm.

### APPLICATION

#### INSTALLATION OF THE MOVEMENT JOINT:

##### **Material handling:**

The **TRANSIFAL C-40** binder is heated to its melting point in a boiler which is fitted with a stirring device and temperature control to prevent overheating. The working temperature must be between 170 and 190 °C. The heating time will not be longer than 6 hours.

The aggregates will be kept at a temperature between 100 and 150 °C.

##### Joint dimensions:

- Joint width: 400 to 500 mm.
- Recommended depth: 100 mm.
- Depth: 80 mm (min); 200 mm (max).

**Execution process:**

1. Location and marking of the movement joint.
2. Creation of the joint seam by cutting the asphalt or the concrete and removing the material between the cuts.
3. Cleaning and drying of the joint seam by sandblasting and thermal lance.
4. Sealing of the joint seam by using **TRANSIFAL C-40** binder after placing a prefabricated joint base.
5. Installation of a metal separating sheet 15 cm wide, 3 mm thick centred on the longitudinal axis of the joint.
6. Priming of the support by spreading the **TRANSIFAL C-40** binder with a trowel.
7. Joint sealing. Once the **TRANSIFAL C-40** binder and the selected aggregates reach the appropriate temperatures, the mixture of the binder and the aggregates is prepared in a concrete mixer. Once the mixture is ready, it is poured into the joint seam in layers of 4 to 5 cm. Subsequently, it is allowed to cool down to about 70 °C and compacted by means of a vibrating plate - compactor.
8. As finishing of the joint, a thin layer of **TRANSIFAL C-40** binder is applied on top.

**APPLICATION AS A FISSURE AND JOINT SEALANT:****Joint preparation:**

The fissure or joint must be perfectly dry and free of dust, grease or any other foreign material. For sealing fissures or joints in concrete, it is essential to ensure the adhesion of **TRANSIFAL C-40** by previously applying a primer, by brush or spray. When the base primer has lost its mordant power, pour the sealant within 6 hours after the application of the primer. For the sealing of asphalt substrates, no priming is required. The sides of the joint need to be heated by a thermal lance, so the surface

temperature is between 100-125 °C (the asphalt pavement binder begins to melt). The **TRANSIFAL C-40** binder is applied immediately, ensuring a perfect adhesion to the material.

**Application of the sealant:**

**TRANSIFAL C-40** will be applied by pouring it at a temperature between 150 and 180 °C. Special care must be taken not to exceed the temperature limit of 200 °C.

The **TRANSIFAL C-40** binder is melted in a boiler with an oil bath and a stirring device to prevent zone overheating. Once the material is melted, it can be kept at a temperature between 150 and 180 °C for maximum 3 to 4 hours. It is recommended to melt the quantity of material needed for immediate application. The cold left over in the boiler should not be reused.

Pouring can be done by hand or under pressure with a pump, with direct supply from the boiler.

The sealing band will be between 5 and 8 cm wide, depending the size of the crack and the degradation of the edges and with a thickness of about 2 mm above the level of the pavement.

This result is obtained by moving a skid-like device along the fissure or joint, achieving the formation of a watertight bridge between the rims.

**Reopening to the traffic:**

Once the seal has been installed, traffic will be allowed after one or two hours depending on the ambient temperature.

**Special recommendations:**

The installation may not be carried out if the ambient temperature is below 5 °C or the support is damp.

## CHARACTERISTICS

| Characteristics                | Standard  | Unit            | Value         |
|--------------------------------|---|-----------------|---------------|
| Density (25 °C)                | EN 13880-1  | g/cm³           | 1,30 (± 0,05) |
| Penetration (25 °C)            | EN 1426   | dmm             | 40-100        |
| Softening point, ring and ball | EN 1426   | °C              | ≥ 85          |
| Pouring temperature            |   | °C              | 150-200       |
| Lengthening                    | UNE 53165   | %               | > 800         |
| Adhesion                       | Very good on most construction materials, provided they are dry and free of dust, grease, paint, etc. |                 |               |
| Packaging                      |   |                 |               |
| Box                            |   | kg              | 25            |
| Pallet                         |   | number of boxes | 24            |
| Pallet                         |   | kg              | 600           |
| Storage                        | Maximum 12 months in original unopened packaging, stored in a dry and cold place.                     |                 |               |

## SPECIAL INDICATIONS

### Hygiene, Health and Environment

The product does not contain any substance which is likely to be detrimental to your health or to the environment and complies with generally admitted Health and Safety Requirements.

### Quality-, Environment- and Safety Management

**SOPREMA** always recognises as a high level of importance the quality of the products, the environment and safety. For this reason, we operate independently monitored Quality and Environment Assurance Systems in line with **EN ISO 9001** and **EN ISO 14001**.