Dantex Maxi-Crete® F20 & F40
Inlaid and Recess Repairs in Asphalt

1. GENERAL DESCRIPTION:

Maxi-Crete F20 and F40 is an impervious, impact resistant, highly flexible repair for cracks, failed joints, reflective cracking, transfer joints and cracks, thin bond repairs and most types of defects in asphalt and concrete pavements.

2. PRODUCT:

Maxi-Crete F20 and F40 is a hot applied polymerised resin compound incorporating fillers, graded aggregates, rubber and other mineral fillers broadcast with a high PSV (≥60) aggregate to meet skid resistance requirements.

3. SURFACE PREPARATION:

3.1   The client engineer or installer shall establish the traffic management system to comply with Chapter 8 of the Traffic Signs Manual.

3.2   The area to which the system is to applied shall be clearly defined by the client prior to commencement of work.

3.3   The existing surface is mechanically planed-out centrally over the length of the cracks to a depth of up to 100mm. The width of the recess should be formed to extend at least 25mm into the sound surface. Typically widths of recess can be 200 – 1000mm.

3.4   The excavated areas are mechanically swept and all spoil removed from the site.

3.5   The recess is cleaned and dried using hot compressed air.

3.6   Any repairs to concrete surfaces must be primed with **Crete-Prime CP Primer** to enhance adhesion. The primer should be applied and allowed to dry in accordance with the manufacturer's recommendations.

4. MIXING & APPLICATION:

4.1   **The Maxi-Crete F20 and F40** Flexible Inlaid Repair System for Highways is satisfactory for use as a flexible inlaid crack-sealing system for repairing cracks, typically in excess of 20mm wide or multiple adjacent cracks, in non-porous bituminous highway surfaces with texture depths not exceeding 2mm, or concrete highway surfaces.

4.2   Installation should only be carried out by installers approved by Walker Sealants Ltd in accordance with BBA Certificate 10/H150 and this Installation Method Statement.

4.3   The ambient and road surface temperature should be recorded at the start and if the weather is variable, during the installation process. **Maxi-Crete F20 and F40** system can be carried out in damp or cold conditions but only if the road surface temperature is ≥0ºC. The system must not be used in periods of continuous or heavy rain.

BBA APPROVAL INSPECTION TESTING CERTIFICATION
TECHNICAL APPROVALS FOR CONSTRUCTION
CERTIFICATE No: 20/H298

5. INSTALLATION PROCEDURE:

Maxi-Crete BR F20 and F40 can be used in two different circumstances. When repairs are being undertaken in surfaces where no, or minor movement is anticipated, only **Maxi-Crete F20** is utilised. Where areas of reflective cracking are evident and further movement is expected the system should incorporate the **Maxi-Crete F20** material as a surface course and **Maxi-Crete F40** as a base course and the following methods should be applied:

SYSTEM 1 - MAXI-CRETE F40 AND FINISH WITH F20:

5.1 The recess must be clean, dry and free from all loose aggregates, moribund sealants, road salt and any other loose material. It is essential to clean with a gas and air lance.

5.2 **Maxi-Crete F40** is melted in dedicated horizontal mixer-heaters that are agitated at a rate of ≥ 10 RPM to a laying temperature of between 180ºC and 210ºC The materials must be kept at this temperature for a period of 40 minutes before using.

5.3 Each charge of material should be heated and used. Do not add fresh material to the hot matrix as this will cause a temperature drop and may cause undigested material at the discharge point.

5.4 **Maxi-Crete F40** is poured into the prepare recess and levelled using a hot tool to finish within approximately 20mm of the adjacent surface.

5.5 If the depth of the recess is greater than 40mm the **Maxi-Crete F40** material should not be applied in layers exceeding 40mm and not less than 20mm.

5.6 **Maxi-Crete F20** is melted down in horizontal mixer-heaters that are agitated at a rate of ≥10 RPM to a laying temperature of between 180ºC and 210ºC.

5.7 **Maxi-Crete F20** is poured into the prepare recess in a layer approximately 20mm deep via a screed box, to finish flush and overlap onto the adjacent surface by 10mm. The application of the **Maxi-Crete F20** surface material must be applied onto, the **Maxi-Crete F40** base material before its temperature falls below 25ºC. Should the temperature fall below 25ºC the recess and **Maxi-Crete F40** surface must be carefully re-heated using a gas and air lance.

5.8 Whilst the **Maxi-Crete** material is still in a molten state, ≥75ºC a covering of pre-heated 3mm aggregate (≥100ºC) is applied to the surface.

5.9 Once the repair has cured (30 minutes to 120 minutes) the work area is mechanically swept to remove any excess aggregate.

SYSTEM 2 - MAXI-CRETE F20:

When repairs are being undertaken in surfaces where no or minor movement is anticipated, the following method should be applied:

5.10 The recess must be clean, dry and free from loose aggregate, moribund sealants oil, road salt and all other loose material. Cleaning with a gas and air lance is essential.

5.11 **Maxi-Crete F20** is melted in dedicated horizontal mixer-heaters that are agitated at a rate of ≥10 RPM to a laying temperature of between 180ºC and 210ºC.

5.12 Each charge of material should be heated and used. Do not add fresh material to the hot matrix as this will cause a temperature drop and may cause undigested material at the discharge point.

5.13 **Maxi-Crete F20** is poured into the prepared recess and levelled using a smoothing iron or a screed box to finish flush with the adjacent surface and to overlap by approx. 10mm.

5.14 If the depth of the recess is greater than 20mm the **Maxi-Cete F20** material should not be applied in layers exceeding 20mm.

5.15 Whilst the **Maxi-Crete F20** material is still in a molten state, ≥75ºC a covering of pre-heated 3mm-5mm aggregate (≥100ºC) is applied to the surface.

5.16 Once the repair has cured (30 minutes to 120 minutes) the work area is mechanically swept to remove any excess aggregate.

6. SYSTEM INSTALLATION CHECKS:

A visual check should be carried out for uniform surface texture, blemishes and any discernible faults and carry out any remedial work as necessary prior to opening the site to traffic.

7. SYSTEM SAFE HANDLING PRECAUTIONS:

* **Do not exceed the maximum safe heating temperature.**

* **Do not allow the hot material to come into contact with water as the product WILL REACT VIOLENTLY.**

* **Always wear the recommended protective clothing.**

8. SAFETY CLOTHING & EQUIPMENT:

The following safety clothing and equipment must be worn **AT ALL TIMES** when handling mixing or applying **Maxi-Crete** materials:

Hand Protection: Gloves - Industrial type, heat resistant with elasticated sleeves.

Eye Protection: Safety Glasses, Goggles, Face Shield (when transferring molten Material).

Skin Protection: High Visibility Jacket, Hard Safety Helmet, Overalls (Flame retardant), Closed Safety Boots.

Manufactures & Suppliers of:
Joint Sealants
Bituminous Repair Compounds
High Friction Surfacing
Colour Coated Aggregates
The Complete Highway Service

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