



CHEM-JOINT 70

High Performance Asphaltic Plug Type Bridge Joint System

PRODUCT DESCRIPTION

CHEM-JOINT 70 is a combination of polymer modified binder and selected aggregates. The binder is a compound blend of bitumens, polymers, fillers and stabilizers, which is specifically formulated to give good fluidity, low and high temperature stability, and slump control.

CHEM-JOINT 70 is delivered in factory batched 'zip' pails or 4 ply silicone bags ready to be heated by approved pre-heaters.

In standard joints, 20mm graded granite is utilized. For shallower joints other sizes may be specified (please refer to the Technical Services Department). Utilizing single size aggregate allows high binder to aggregate content thereby ensuring optimum combination of flexibility and load bearing capacity.

CHEM-JOINT 70 is available in a range of formulations to suit variations of climates including continental and tropical, thereby ensuring flexibility of the joint in cold temperatures and structural integrity in very warm conditions. CHEM-JOINT 70 is designed to extend the full depth of the road down to the structural concrete deck and will develop a tenacious bond to concrete as well as the adjacent asphalt arises. For joints up to 2 inches (50mm) wide, an aluminum or steel strip is placed over the joint to prevent aggregate entering the joint. For joints over 2 inches (50 mm), the steel plate assists in the distribution of wheel loads across the joints.



FIELDS OF APPLICATION

CHEM-JOINT 70 is a hot process in-situ constructed expansion joint system capable of accommodating movements up to 70 mm (± 35 mm). It forms an integral part of the wearing course.

PRODUCT FEATURES

- Flexible and completely waterproof.
- Ability to accommodate longitudinal, rotational, and transverse movements.
- Easy and quick repairs following accidental damage should this occur.
- Able to withstand extremes of temperature from -22°F to 140°F (-30°C to +60°C).
- Low surface noise and excellent ride quality.
- Quick installation, thereby minimizing disruption to traffic flows.
- Can be used across the full depth of the bridge deck.
- Accepts Anti-skid finishes.
- Very low maintenance.

PACKAGING

Product	Packaging
CHEM-JOINT 70	66.14 LB (30 KG) PAIL
	55.12 (25 KG) BAG

Ready to use aggregate is available in 50 kg bags.

TECHNICAL DATA

CHEM-JOINT 70 has been tested to the latest ASTM, BS and DIN standards.

Property	Result	Requirement	Test Method
Softening point ring & Ball, °C	105.5	≥ 65	ASTM E28
Flow @ 113°F (45°C) after 5 Hours, %	0.5	≤ 5	BS 2499:1973
Cone Penetration 150 grams at 77°F (25°C) for 5 seconds, mm	34	≤ 40	ASTM D-217
Cone Penetration 150 grams at 77°F (25°C) for 5 seconds, mm	3.4	≤ 4	BS 2499:1973
Bond Strength @ 23°F (-5°C) for 3 cycles involving extension by 50% at a rate of 3.2 mm/hour			ASTM D-3407
Area of adhesion loss, mm	NIL	≤ 50	-
Depth of separation	NIL	≤ 3	-
Area of cohesive rupture	NIL	≤ 20	-
Depth of cavity	NIL	≤ 3	-
Specific Gravity @ 77°F (25°C)	1.31	-	DIN 52004

CHEM-JOINT 70 Binder Selection Table:

Grade	Service Range, °F (°C)
CHEM-JOINT 70 STD	23 to 86 (-5 to 30)
CHEM-JOINT 70 C	-22 to 95 (-30 to 35)
CHEM-JOINT 70H	32 to 140 (0 to 60)

Movement Accommodation Table:

Joint Width mm (in)	Joint Thickness Inch (mm)	Maximum Movement (%)
750 (30)	4+ (100)	± 25
	3 to 4 (75 to 100)	± 25
	2 to 3 (50 to 75)	± 12
500 (20)	4+ (100+)	± 25
	3 to 4 (75 to 100)	± 25
	2 to 3 (50 to 75)	± 12
300 (12)	4+ (100+)	± 5
	2 to 4 (50 to 100)	± 5

APPLICATION

Preparation: the sealing recess prior to application of CHEM-JOINT 70 must be thoroughly prepared by template former for new works or in the case of remedial works; asphalt surfacing is removed to recommended width by saw cutting and jack hammering. The asphalt must be removed completely to expose the deck. All traces of waterproofing membrane must be removed. Failure to do so will form a bond break.

Where previously mechanical joints have been used, all fixing bolts must be trimmed flush with deck. The recess and the expansion joint is cleaned and prepared using a hot compressed air lance thereby ensuring that the surface is free from contaminants and it is warm ready to receive the CHEM-JOINT 70 binder.

Installation: ensure that the expansion joint is sealed with good quality cross-linked polyethylene foam. The recess is tanked with hot CHEM-JOINT 70 binder that has been heated in an approved pre-heater to its application temperature in accordance with the company's instructions. Aluminum strip or steel plate is placed over the expansion joint. Aggregates is pre-heated to 300°F to 375°F (150°C to 190°C) and placed into the joint to a maximum depth of 1.5 inch (40 mm) but not less than 0.75 inch (20 mm). The layer is then floated with the correctly heated binder and the process is repeated until the joint is within 2 inches (25 mm) of the surface.

For final 2 inches (25 mm) layer apply pre-mix layer and compact using a compactor or vibrating roller. Seal surface using CHEM-JOINT 70 binder.

CLEANING

Remove CHEM-JOINT 70 from tools and equipment with suitable solvents such as Mineral Spirits, Xylene, Toluene or CHEM-CRETE BLENDED SOLVENT immediately after use. Cured material may only be removed mechanically.

STORAGE

The product can be stored for minimum of twelve months. Store CHEM-JOINT 70 binder in cool dry storage facilities. Do not expose to direct sunlight or heat.

SAFETY PRECAUTIONS

Keep Out of the Reach of Children. Adequate precautions and care must be taken during usage and storage. Avoid direct contact with eyes and skin. Keep away from children and animals. Any direct contact with skin, eyes, etc. should be washed thoroughly with clean water. Use proper safety wear, goggles, and masks, etc. Empty cans must be disposed according to local city code or regulations. Under no circumstances empty cans should be used to store food or drink even if they have been thoroughly cleaned. Follow all cautionary direction as printed on container's labels.

TECHNICAL ASSISTANCE

Please contact International Chem-Crete Corporation for Technical Personnel.

WARRANTY

LIMITED WARRANTY: International Chem-Crete Inc. warrants that, at the time and place we make shipment, our materials will be of good quality and will conform to our published specifications in force on the date of acceptance of the order.

DISCLAIMER: The information contained herein is included for illustrative purposes only and, to the best of our knowledge, is accurate and reliable. International Chem-Crete Inc. is not under any circumstances liable to connection with the use of information. As International Chem-Crete Inc. has no control over the use to which others may put its products, it is recommended that the products be tested to determine the suitability for specific applications and/or our information is valid in particular circumstances. Responsibility remains with the architect or engineer, contractor and owner of the design, application and proper installation of each product. Specifier and user shall determine the suitability of the product for specific application and assume all responsibility in connection therewith.

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