

Elastomeric Concrete - Fix Expansion Joints

Guardian EC-EJ is an elastomeric concrete for use in highways, taxiways and bridge repairs and for expansion joint assembly anchoring and projecting edges such as nosings.

USES & ADVANTAGES

An easy to use elastomeric concrete for repairs to runways, highways, bridge and expansion joint arises. It is used in new construction of expansion joints. It is also used in repair of expansion joints, that involve connection of steel to concrete.

Advantages include:-

- Excellent adhesion to steel and concrete.
- Greater compressive strength, along with better impact resistance.
- Can be easily installed with early strength gain & flexibility.
- Can accept traffic in approx. one hour.
- Fully cured material is resistant to changes in temperature.
- Use as a pourable sealant in expansion joints.
- Withstands heavy loading.
- Resistant to chemicals & fuel oils.

PROPERTIES

Specific Gravity @25°C :	Approx. 1.8 kg/litre	
Final Setting Time @25°C :	Approx. 60 min.	
Rheological Properties : (Immediately after mixing)	Self-Leveling.	
Tensile Strength :	> 5 MPa.	ASTM D638
Elongation at Break :	> 50 %	ASTM D638
Shore D Hardness : (Full Cure)	Approx.55-60	ASTM D2240
Impact Resistance :	No crack or breaks observed.	ASTM D3029
Abrasion Test :	139 Mg/1000 cycles	
Compressive Strength : 7 Days @25°C	7.5 – 12 N/mm ²	ASTM C579
Trafficable at 25°C :	Approx. 1 hour.	
Full Cure Time at 25°C :	7 Days	
Adhesion Bond Strength : to Concrete @7 Days	3.2 N/mm ² ASTM D4541	
Chemical Resistance : ASTM D543	Dilute sulphuric acid Dilute NaOH solution Sea water Chlorine water Waste water Glycerine Soap solution Fuels & oils	

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Note: Guardian EC-EJ is moisture sensitive. Part A & B must be premixed before adding Part C. In case of unexpected rainfall conditions, ensure that the applied product has already reached its final setting time, before actual rainfall occurs.

Do not apply the product below 7 °C. Temperature should be 7 °C & rising.

Wet & damp condition: prime with **Guardian EAP**

CONSUMPTION

Approx. 79-81 sets of **Guardian EC-EJ** will yield 1 cubic metre of concrete.

SUBSTRATE PREPARATION

Ensure no moisture present in the substrate. If moisture present hot air blasting can be done to remove excess moisture from the substrate until it becomes moisture free. Cut out all damaged spalled concrete to leave a clean dust free dry exposed aggregate surface ensure there is no contamination. The edges of the repair must be cut at right angles the full depth of the repair. New concrete should be at least 14 days old. Surface preparation can also be done using sand blasting method. No primer is required when the concrete surface is prepared clean and roughened.

In the case where additional bonding of the substrate with the repair product is required, primer is available upon request.

For wet & damp condition: prime with **Guardian EAP**. Allow to dry for approx. 30 minutes to 2 hrs.

MIXING & APPLICATION

STEP-1: MIXING PART A & B

Premix "Part A" & "Part B" for approx. 2-3 minutes using high speed drill mixer (or) paddle mixer having ribbon blades until a uniform homogenous mixture is achieved.

STEP-2: FILLER ADDITION TO PART A & B

Add pre weighed aggregates of "Part C" slowly with continuous mixing to premixed resin-hardener mixture for approx. 2 minutes until a uniform homogenous mixture is obtained.

Note: Do not add all Part C at once.

STEP-3: PLACING OF Guardian EC-EJ

Pour the homogenous mixture of **Guardian EC-EJ**, immediately into the repair area.

The poured material is self levelling.

STEP-4: CURING & FINISHING

The poured material will initially cure within 5-10 minutes, providing smooth surface finish.

Notched trowel can be used after initial cure time, to trowel the applied product & get antiskid surface finish.

The applied product reaches its final setting time in approx. 1 hour & then accept traffic.

CLEAN UP

Use xylene to clean equipment.

PACKAGING

23 kg set. (Part A= 6 kg. Part B= 2 kg and Part C = 15 kg.)

23 kg set = 12.78 litres.

STORAGE & SHELF LIFE

Do not allow to freeze. Store in a dry shaded area between 10-35°C in original unopened containers. The shelf life is 12 months when stored correctly in the original unopened containers.

HEALTH & SAFETY

Wear protective clothing, goggles & gloves. If in contact with eyes wash out immediately with water & seek medical attention. Fatal if taken internally.

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TECHNICAL SERVICE

Guardian Coating Service Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

QUALITY ASSURANCE

ISO 9001: 2015 verified by TUV Nord.

DISCLAIMER

Performance data is achieved testing in accordance with International Standards. Testing by others may result in different results from those published as a result of external factors such as poor sampling, incorrect mixing, varying temperatures, curing, crushing procedures etc.

Guardian does not take responsibility nor need to defend others testing that does not achieve the published data.

The user must test the products suitability for the intended application and purpose. Guardian reserves the right to change the properties of the product.

Site conditions and differences in materials are such that no warranty or fitness for a particular purpose, nor liability can be inferred from the published data sheet, written recommendations or from other advice offered.