

DENKA RIS CHLORE FIX ACE

Chloride-fixing Cross-Sectional Repair Additive

Description

DENKA RIS CHLORE FIX ACE is a premixed repair additive that immobilizes chloride ions to minimize damage in steel-reinforced concrete structures. By simply using **DENKA RIS CHLORE FIX ACE** for cross-sectional repair, the durability of steel-reinforced concrete to salt damage is remarkably improved.

Features

- Immobilizes chloride ions that cause rebar corrosion; greatly enhancing durability
- Incorporates polyacrylic ester that increases bond strength, flexural strength; and suppresses damage to steel-reinforced concrete caused by water, CO₂, salt
- Requires only mixing with water on-site to produce mortar with excellent properties
- Minimizes cracking that compromises mortar durability
- Moderate viscosity and superb workability for trowelling, 10~20mm standard thickness per applied layer

Applications

- Cross-sectional repair of steel-reinforced concrete structures damaged by salt

Packaging and General Information

- 12.5kg paper bags
- Appearance: Pale cement-gray
- Recommended usage temperature: 10~35°C
- Recommended standard water mix ratio: W/RIS CHLORE FIX ACE = 14% (13~15%)

Standard Mix Proportions

	Flow value	RIS CHLORE FIX ACE (kg)	Water ¹ (kg)	Final mix volume (l)
Per bag	150~190	12.5	1.8	7.1
Per m ³		1750	245	1000

¹As the actual amount of water required is dependent on material temperature, ambient temperature, mixer structure etc., conduct trial tests beforehand to verify the optimum amount of water to use.

Technical Data (Physical Properties)

	Measured value		Test method
Hardening Time (h)	3.0		JIS R5201
External appearance	Uniform (no cracking, peeling, blistering)		JIS A6909
Hardening-caused shrinkage (%)	0.04		JISA1129-3
Heat-caused expansion (°C)	1.2×10^{-5}		JIS K6911
Adhesion to concrete (N/mm ²)	Wet	2.0	JIS A6909
	After alkali-resistance test	2.0	
After freezing/thawing test	1.8		
Adhesion to paint coating (N/mm ²)	After freezing/thawing test	1.9	
Compressive strength (N/mm ²)	Day 7	22.5	JIS R5201
	Day 28	35.1	
Flexural strength (N/mm ²)	Day 7	6.8	
	Day 28	8.1	

- Accelerated rebar corrosion tests

Photos below show the corrosion status of test specimens after 1 year.



Plain concrete
: Corrosion present



With **RIS Chlore Fix Ace**
: No corrosion observed

Handling Precautions

- Refer to the Safety Data Sheet (SDS) before use.
- Use clean water free from oils, salts, or organic compounds.
- Use a specialized high speed mixer to mix mortar at above 900rpm. Ensure that the mixer blade is either stainless steel or iron. Do not use an aluminum blade because hydrogen gas evolution can occur while mixing the mortar; resulting in explosions.
- Use only the recommended water amounts during mixing to ensure optimum mortar conditions.
- Wear protective gear (goggles, mask, gloves, and rubber boots) while handling the product. Do not dispose of the product in drains.
- Once opened, the product should be used up completely within the same day as it is highly hygroscopic.

- The product should be stored in a dry area, indoors, and out of direct sunlight.
- For further information, please contact DENKA.

Limitation of Liability

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