

Product Data Sheet

CasTech CI-555

Nov-2025, Ver. 01.01



Organic Corrosion Inhibiting and Waterproofing Admixture

DESCRIPTION

CasTech CI-555 is an organic migratory corrosion inhibiting and waterproofing admixture formulated to inhibit the corrosion of steel reinforcement in concrete. **CasTech CI-555** provides two levels of corrosion protection – inhibiting and waterproofing.

Dosed at 5 L/m³, **CasTech CI-555** is formulated to provide optimum corrosion protection of reinforced concrete in severe corrosive environments, and therefore also in less severe environments. A single dosage eliminates the uncertainty of determining the severity of the environment and the chloride exposure of the structure.

HOW IT WORKS

CasTech CI-555 lines the pores of the concrete matrix, waterproofing it and slowing the rate at which chlorides and moisture enter the concrete. It also migrates to and adsorbs onto the reinforcing steel to form a corrosion-resistant protective film, which slows the corrosion process by preventing chlorides from reacting with the steel and by depriving the process of moisture and oxygen.

ADVANTAGES

Key advantages:

- Extends the service life of reinforced concrete by slowing the ingress of chlorides and moisture
- Forms a strong, durable protective film on the reinforcing steel – a second level of protection
- Effective with all cement factors, and in cracked concrete
- Non-chloride: will not initiate or promote corrosion of reinforcing steel, prestressed concrete or concrete on galvanised steel decks

Effect on concrete:

- Plastic properties of concrete are not significantly affected
- No effect on slump or the temperature development profile
- Concrete to steel bond strength is not affected

TYPICAL PROPERTIES

Appearance	Clear to brownish yellow liquid
Chloride-based ingredients	None
Standards	ASTM G109, ASTM C494, BS 6920

BS 6920 confirms concrete containing the product is suitable for contact with water.

CORROSION INHIBITING SYSTEMS

To control corrosion in reinforced concrete, the ACI Building Code (ACI 318) requires limiting the water-cementitious materials ratio, providing adequate cover and limiting the initial chloride content; construction practice should give dense, void-free concrete. In addition, CasTech recommends **CasTech CI-555** as the basis of a multi-level system, with high-range water reducers and/or silica fume to further reduce permeability.

INSTRUCTIONS FOR USE

CasTech CI-555 may be added with the concrete batch water. It should not be mixed with any other admixtures prior to being introduced into the concrete mixer. The use of this admixture does not require changes in normal batching procedures. Trials must be carried out to ensure the mix design meets the specified performance criteria.

DOSAGE

CasTech CI-555 is recommended for use at a dosage rate of 5 L/m³ of concrete for all applications and corrosion environments.

PRECAUTIONS

Health & Safety:

CasTech CI-555 is not a fire or health hazard. Spillages should be washed down immediately with cold water. For further information refer to the Material Safety Data Sheet.

STORAGE

Store at ambient temperatures above 2°C but not exceeding 52°C. Ensure that undiluted product does not reach ground water, water courses or sewage systems.

PACKAGING

CasTech CI-555 is available in 208 L drums and bulk if required.

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TECHNICAL SUPPORT

CasTech provides technical support service on mix design,

admixture selection, evaluation of trials, dispensing equipment etc. Please contact the Technical Department in these cases.

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