

ECMAPLAST 105

225 kgs

Packaging

ECMAPLAST 105 is supplied in 225 kgs HDPE barrels.

Shelf Life

Upto 12 months in our original, unopened, sealed packaging.

STANDARDS

It is in compliance with ASTM C 494 TYPE "C" Category and BS 5075-Part 3.

ECMAPLAST 105 complies with IS 9103-1999, 2007.

Description

ECMAPLAST 105 is a high performance air entraining admixture, supplied in ready to use form, prepared with carefully selected polymers.

Function

When ECMAPLAST 105 is mixed with concrete, it introduces uniformly sized micro pockets of air. This helps improve the properties of concrete in expotentially.

Advantages

ECMAPLAST 105 improves workability, cohesion, impermeability and hence overall durability of concrete. It also increases crack resistance and reduces bleeding significantly along with segregation, so that even harsh mixes are improved. It gives excellent freeze:thaw resistance. ECMAPLAST 105 provides controlled air entrainment and hence in well designed concrete mixes does not cause strength loss. It is chloride-free and hence no risk of corrosion. It is compatible with all types of OPC, PPC, PFA, GGBFS, Micro-Silica etc.

Physical Properties

| | |
|------------------|--|
| Physical Form | Brown Liquid |
| Chloride Content | < 0.2% |
| Air Entrainment | 2% to 8% over control at various dosage levels |
| Specific Gravity | 1.14 ± 0.02 @ 27°C |
| PH Value | Above 6 |

Dosage And Usage

The normal recommended dosage is 50 ml to 200 ml per 50 Kg bag of cement, which results in air entrainment of about 2% to 8% over control. Depending upon the requirement at site, dosage levels have to be altered to get acceptable values of ...



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Storage And Handling**KEEP DRY**

The materials must be stored in a moisture free, cool and dry environment, away from any direct sun-light.

STACK HEIGHT

Please avoid stacking of the containers.

Handle the product(s) very carefully during transportation.

Safety Precautions

ECMAPLAST 105 should be used only at recommended dosage levels. Higher dosages will result in very high air entrainment level, which may result in reduction in strength. Hence suitable site trials have to be conducted with available raw materials at site.

ECMAPLAST 105 is non-toxic. It is also non-flammable.

... air entrainment and hence acceptable strengths. Trials have to be carefully carried out as air entrainment depends upon, fineness of cement, sand, type of coarse aggregates, mixing time, temperature, condition of the blades in the mixer, total water content etc.

ECMAPLAST 105 has to be added on to a wet concrete mix for best results. In other words, after adding and mixing about 85% to 90% of total mixing water with other ingredients of concrete, ECMAPLAST 105 is diluted in the remaining water and added on to the already mixed, wet concrete. Now the entire batch of concrete is mixed again thoroughly to ensure uniform spreading of ECMAPLAST 105. When its water reducing ability is judiciously utilised ECMAPLAST 105 gives highly impermeable and durable concrete.

Uses

ECMAPLAST 105 is used in water retaining structures like dams, reservoirs, power stations, underground water tanks, high ways etc. It is also used wherever improved cohesion, bleeding, segregation characteristics along with impermeability freeze:thaw resistance, pumpability is required.

Trial Mix**Mix Constituents**

| | |
|-----------|--|
| Cement | 300 kg/m ³ OPC 43 Grade |
| Sand | 44% zone 2, IS 383-1970 |
| Aggregate | 1135 kg/m ³ 20mm to 10mm, IS 383-1970 |

Air Entrainment

| | Dosage | Air enteriment |
|---|--------|----------------|
| Reference concrete | Nil | 2.3% |
| With ECMAPLAST 105 per 50kg bag of cement | 120 ml | 6.0% |

Strength Results

| Test | Dosage 50kg cement | Slump mm | W/C ratio | Compressive Strength MPA days N/mm ² | | |
|----------------------|-----------------------|-------------|--------------|--|--------|---------|
| | | | | 3 days | 7 days | 28 days |
| Reference Concrete | NIL | 50 | 0.610 | 12.8 | 16.4 | 26.6 |
| Workability enhanced | 120 ml | 160 | 0.61 | 12.6 | 16.0 | 26.8 |
| Improved Strength | 120 ml | 55 | 0.55 | 14.6 | 20.0 | 29.4 |



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Wear all PPE's at the time of the application like safety boots, goggles, hand gloves and masks. Any direct skin contact or splashes on eyes has to be immediately washed with plenty of water and seek medical advice.

Quality Policy

We are committed to provide high quality products to ensure highest performance. Each product comes with ECMAS quality stamp is intended to maximize value addition and performance of the final product. The products are manufactured under a management system independently certified to conform to the requirements of the quality standards of ISO 9001-2015.

Technical Support

Each user can determine the suitability of this product in their particular mode of operation. An ECMAS representative will be happy to assist in proper selection of all our products available for commercial use.



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