



ISO 9001:2008  
FM54275

# CICO PLAST SUPER-P190A

## CONCRETE SUPERPLASTICISER/HIGH RANGE WATER REDUCING ADMIXTURE

- DESCRIPTION** CICO PLAST SUPER-P190A is new generation concrete admixture based on modified Sulphonated naphthalene formaldehyde, combining the properties of superplasticisers with high degree of slump retention characteristics, high range water reducer and also acts as waterproofers for concrete, conforms to ASTM C-494
- USES** CICO PLAST SUPER-P190A is used for producing extremely flowing concrete, pumped concrete, pre-stressed, pre-cast high strength and denser concrete as well as in industrial / commercial flooring and floor toppings.
- APPLICATION**
- At locations with congested reinforcements, thin slender section or any other locations, where improved workability and high strength is required.
  - Pump concreting as it improves the lubricating properties.
  - Roof slabs for both residential as well as industrial building.
  - Medium to low grade concrete to improve the cohesion.
  - Water retaining structures.
  - Concrete tunnel lining.
- ADVANTAGES**
- Improves the workability of concrete without increasing water.
  - Improves both early and ultimate strength without increasing cement content and without reducing workability.
  - Internal friction and thixotrophy of the mix is reduced to a minimum without the risk of segregation, thus making concrete pumpable without formation of nesting.
  - Produces self-compacting concrete which can be poured around congested reinforcement and requires little or no vibration.
  - Significant water reduction minimizes shrinkage crack thereby produces close textured impervious high strength concrete with improved durability and surface finish.
  - Useful in most type of concrete above and below ground subjected to water pressure and aggressive environment.
  - Reduces concrete permeability value and hence ingress of water is reduced which protects embedded steel against corrosion.
  - Bond strengths of concrete to reinforcement to steel is also increased considerably.
  - Improves both early and ultimate strength without increasing cement content and without reducing workability. Saves cement (10 – 20%) keeping workability and strength constant.

### TECHNICAL DATA

<b>Form</b>	Free flowing liquid
<b>Colour</b>	Brown
<b>Specific Gravity</b>	1.15 ± 0.02
<b>Effect on setting time</b>	Marginal retardation but well below its acceptable limit.
<b>Chloride content</b>	Nil as per BS 5075 Part 1
<b>pH Value</b>	>6

- COMPATIBILITY** **CICO PLAST SUPER-P190A** is compatible with all types of Indian cement. But to get the maximum ultimate beneficial properties it is advisable to conduct trial mixes before use.
- DOSAGE** The optimum does depends on type of mix, grade of concrete, cement content and the desired workability. It is advisable to conduct laboratory or site trials with particular mix to achieve the optimum economical dose. As a guide the does may vary from 0.4% to 2% by wt. of cement.
- PRECAUTIONS**
- Use **CICO PLAST SUPER-P190A** with other admixtures such as water reducing and air entraining agents after testing slump, strength, etc.
  - Should not be added directly to the dry cement.
- PACKING** Available in 5 Kg, 20 Kg, 250 Kg barrel
- STORAGE** Keep it in a cool place.
- HEALTH & SAFETY** Avoid contact with eyes. Prolonged contact with bare skin may cause irritation. Wear safety goggles and gloves during handling.

**TABLE – I WORKABILITY Vs. DOSAGE (TYPICAL)**

TYPE OF MIX	DOSE % (w/w)	W/C RATIO	CEMENT CONTENT Kg/M <sup>3</sup>	SLUMP
Control Mix	0.0	0.55	350	50
<b>CICO PLAST-SUPER-P190A</b>	0.2	0.55	350	80
Do	0.4	0.55	350	150
Do	0.6	0.55	350	200

**TABLE – II COMPRESSIVE STRENGTH Vs DOSAGE (TYPICAL)**

TYPE OF MIX	DOSE % (W/W)	W/C RATIO	CEMENT CONTENT Kg/M <sup>3</sup>	COMPRESSIVE STRENGTH kg/cm <sup>2</sup>	
				7 days	28 days
Control Mix	-	0.55	350	175	255
<b>CICO PLAST-SUPER</b>	0.2	0.53	350	210	305
Do	0.4	0.50	350	245	350
D0	0.6	0.47	350	300	410

- PRODUCT INFORMATION** Although the basic formulation of our products generally remains unchanged. Production refinements arising from continuing research and evaluation program may occasionally results in marginal changes in properties.
- TECHNICAL SERVICE**
- CICO** maintains a technical division with highly qualified Technical Personnel to investigate and advise on subjects related to concrete and the construction industry. The Division will advice on the correct use and selection of right products at the right place.
- CICO** undertakes Consultancy Service for diagnosis and rehabilitation of distressed structures.
- CICO** undertakes jobs as a package for total waterproofing system with guarantee

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