

Innovation Inside Every Pour



CONCRETE  
**ADMIXTURE**





# CONCRETE ADMIXTURES

## REDEFINING STRENGTH & DURABILITY

In today's fast-paced construction industry, achieving high performance, durability, and sustainability is more important than ever. Concrete admixtures are the hidden strength behind modern infrastructure, engineered to enhance the workability, strength, and long-term performance of concrete.

At Redwop Chemicals, we bring innovation into every mix. Our range of admixtures is scientifically designed to optimize concrete behavior, ensuring reliable results in diverse site conditions.

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## What is admixture?

Admixtures are special chemicals, other than cement and pozzolana, that are added to concrete during mixing to improve its properties like workability, strength, and durability. They enable engineers to tackle modern and demanding structural design challenges with greater efficiency.

### Advantages



Increase Workability



Improves Leveling of Bed



Improves Cohesion & Homogeneity



Improves Durability



Reduces The Cubic Meter Cost



Reduces Water Content For Higher Strength



Accelerates Early Strength Development



Resists Freeze Thaw Action

### Type of Admixture

Admixtures are broadly classified based on their primary function as Water Reducers (Plasticizers), Retarders, Accelerators, High-Range Water Reducers (Super Plasticizers), and Air-Entraining Agents.

In addition to these, to fulfill diverse requirements, concrete manufacturers are often supplied with admixtures that combine the above-mentioned properties, such as:

High range water reducing and retarding admixture Water reducing and accelerating admixture

The advent of new construction techniques for skyscrapers and mega structures has posed greater challenges for engineers. To achieve such unique goals and meet special requirements, certain specialized products prove highly useful.

**Value-Added Products:** In addition to admixtures, there are other solutions designed to enhance the performance of concrete. These products, tailored to specific site requirements, are known as value-added products and include:

- Integral Waterproofing Admixtures
- Viscosity Modifying Admixtures
- Corrosion Inhibitors
- Mould Release Agents
- Curing Compounds
- Colours for Concrete
- Microsilica
- Steel Fibers
- Polypropylene (PP) Fibers
- Precast Solutions

# REDBRAWN 300SM

## Superplasticizer



### APPLICATION AREA

- Site Mixed & All type of high and low raise buildings
- RCC and PCC works
- Load bearing & Non loading bearing structure

### APPLICATION PROCEDURE

- The recommended dosage as per guidance is 0.70 to 1.250% of cementitious content.

### ADVANTAGES

- Reduce water cement ratio
- Creates Impervious and dense concrete
- Ideal for use in low fines, crushed sand concrete mixes
- Produce high strength concrete

### Performance High Light



**2 hours Retention -130mm**

### COMPLIANCE STANDARD

- IS 9103:1999, CM/L 7600149811

### PROPERTIES

Appearance	Free Flowing Brown Liquid
Sp. Gravity	1.05 to 1.15 @25°C
Chemical Base	Naphthalene
PH Value	7 to 8
Setting time	Same as control Concrete
Chloride Content	Nil

### PACK SIZE

- 50 & 220 kg HDPE Drum





# REDBRAWN 400

## PCE Based Superplasticizer



### APPLICATION AREA

- Ready-Mix Concrete
- Normal Strength Concrete (M05 TO M40 Grade of Concrete)
- Structure Concrete & Pumped concrete

### APPLICATION PROCEDURE

- The recommended dosage as per guidance is 1 to 1.30% of cementitious content.

### ADVANTAGES

- Good dispersion resulting in High workability & superb slump retention.
- Improves cohesiveness & pumpability.
- Can be placed and compacted in congested reinforcements without vibration & improves surface finish.
- Ideal for use in low fines, crushed sand concrete mixes

#### Performance High Light



**3hours Retention -150mm**

### COMPLIANCE STANDARD

- IS 9103:1999, CM/L – 7600149811

### PROPERTIES

Appearance	Free Flowing Brown Liquid
Sp. Gravity	1.1 to 1.12 @ 25°C
PH Value	6 to 8

### PACK SIZE

- 220 kg HDPE Drum





# REDBRAWN 600

## PCE based Mild Performance Superplasticizer



### APPLICATION AREA

- Self-compacting concrete, Mivan, Flow Mix.
- High Rise Pumping.
- Mass concreting works
- Concrete with high strength properties

### APPLICATION PROCEDURE

- The recommended dosage as per guidance is 1 to 1.25% of cementitious content.

### ADVANTAGES

- Excellent dispersion resulting in High Workability & slump retention.
- Increases early & ultimate strengths
- Increases Flexural strength & E-modulus
- Can be placed and compacted in congested reinforcements without vibration & improves surface finish.
- Increases Durability & Impermeability
- Reduced labour requirement

### Performance High Light



**4hours Retention -550mm Flow**

### COMPLIANCE STANDARD

- IS 9103:1999, CM/L – 7600149811

### PROPERTIES

Appearance	Free Flowing Brown Liquid
Sp. Gravity	1.1 to 1.12 @ 25°C
PH Value	6 to 8

### PACK SIZE

- 220 kg HDPE Drum





# REDBRAWN 800

## PCE based High Performance Superplasticizer



### APPLICATION AREA

- Concrete with high strength such as M60 to M100
- Self-compacting concrete.

### STRUCTURE

- High Rise building - Mivan, Slab, Columns etc.

### APPLICATION PROCEDURE

- The recommended dosage as per guidance is 0.90 to 1.2% of cementitious content.

### ADVANTAGES

- Produces highly workable concrete
- Excellent dispersion resulting in High retention.
- Increases early & ultimate strengths.
- Increases Flexural strength & E-modulus
- Can be placed and compacted in congested reinforcements without vibration & improves surface finish.
- Reduced labour requirement
- Increases durability & impermeability.

### Performance High Light



**4hours Retention -600mm Flow.**



### COMPLIANCE STANDARD

- IS 9103:1999, CM/L-7600149811

### PROPERTIES

Appearance	Free Flowing Brown Liquid
Sp. Gravity	1.10 to 1.15 @ 25°C
PH Value	7 to 8.5

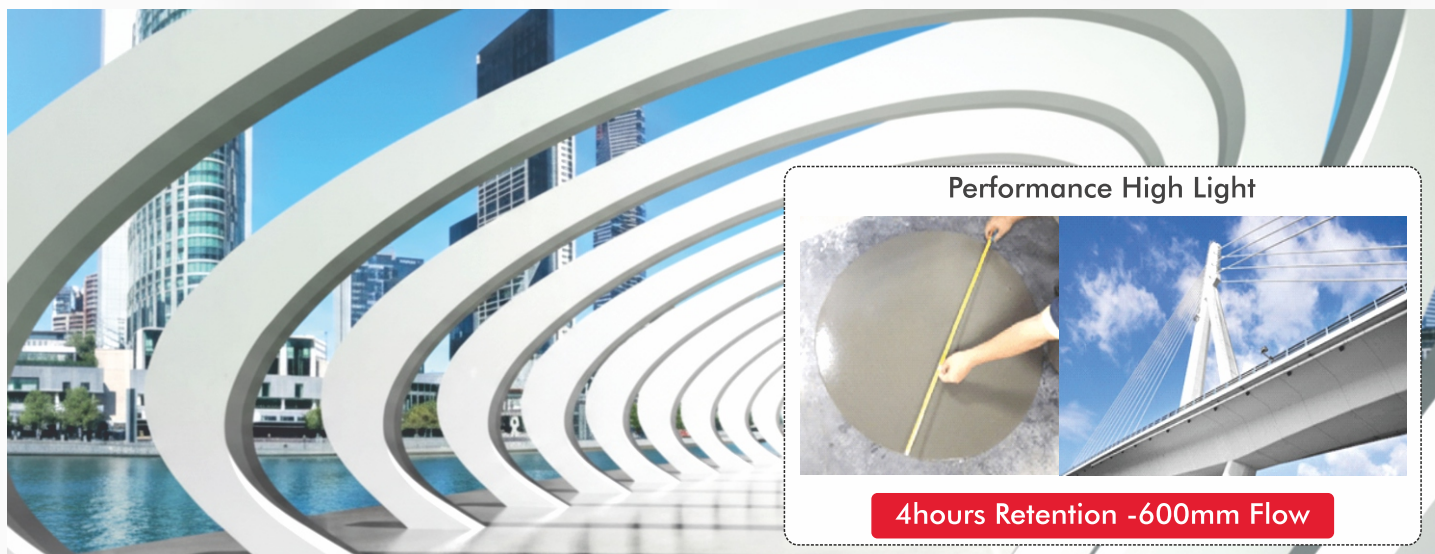
### PACK SIZE

- 220 kg HDPE Drum



# REDBRAWN 1000 ( UHPC)

High Range Superplasticizer for ultra high performance concrete



## APPLICATION AREA

- Airport Runways, Bridge Road & Highways etc.
- Prestressed girders
- Precast waffle panels for bridge decks
- Field-cast closure pours for prefabricated bridge elements (Joint-Fills)
- Precast concrete piles
- Thin bonded overlays of bridge decks

## APPLICATION PROCEDURE

- The recommended dosage as per guidance is 0.9 to 1.25% of cementitious content.

## COMPLIANCE STANDARD

- IS 9103:1999

## PACK SIZE

- 220 kg Drum



## USES

- Precast concrete and other high early strength requirements.
- To provide improved durability by increasing ultimate strengths and reducing concrete permeability.
- Speed of construction
- Improved durability
- Reduced maintenance
- Reduced out-of-service
- Minimum interruption
- Reduced element size and complexity
- Extended usage life
- Improved resiliency

## ADVANTAGES

- Production of UHPC -High performance / high strength concrete.
- Concrete requiring retained workability with low water binder ratio.
- Concrete placing in congested steel reinforcement.
- Depending on dosage rate used; high flow and self-compacting concrete (SCC).
- Slim elements requiring a high standard of surface finish.
- Increased early and ultimate compressive strengths .
- Increased flexural strength & Higher E modulus .
- Improved adhesion to reinforcing and stressing steel .
- Better resistance to carbonation .
- Lower permeability & Increased durability.
- Better resistance to aggressive atmospheric conditions .
- Reduced shrinkage and creep .

## PROPERTIES

Appearance	Free Flowing Brown Liquid
Sp. Gravity	1.15 to 1.20
PH Value	6 to 8
Chloride content	Nil



# REDCAST 1000ES

## High Range Superplasticizer Cum Accelerator

Early Strength Concrete Admixture is an early strength concrete admixture is an accelerating admixture, often a chemical specially formulated that speeds up the cement hydration process, enabling the concrete to achieve high strength more quickly after placement.



### APPLICATION AREA

- Precast Concrete
- Bridge, Airport Runways, Highways or Roads.
- High Rise Building

### APPLICATION PROCEDURE

- The recommended dosage as per guidance is 0.8 to 1.4% of cementitious content.

### COMPLIANCE STANDARD

- IS 9103:1999

### PACK SIZE

- 220 kg Drum

### ADVANTAGES

- Faster Construction Progress
- Reduced Formwork Time
- Early Load Application
- Increased early and ultimate compressive strengths
- Increased flexural strength & Higher E modulus
- Improved adhesion to reinforcing and stressing steel
- Better resistance to carbonation
- Lower permeability
- Better resistance to aggressive atmospheric conditions
- Reduced shrinkage and creep
- Increased durability

### USES

- Precast concrete and other high early strength requirements.
- To provide improved durability by increasing ultimate strengths and reducing concrete permeability.

### PROPERTIES

Appearance	Brown Color Liquid
Sp. Gravity	1.15 to 1.20
PH Value	6 to 8
Chloride content	Nil



# ADMIX (P)

## Crystalline Waterproofing Admixture for Concrete & Mortar



### APPLICATION AREA

- Building Basement and foundations
- Sewage, water treatment plants, Dams, canals, Tunnels, Harbors
- Tunnel and subway systems
- Water reservoirs, Concrete pipes and Parking structures
- Pre- Cast, Cast-in-situ and Shotcrete applications
- Swimming pools, Retaining walls & sea defense walls

### ADVANTAGES

- Reduces penetration of water and other liquids
- Can seal hairline cracks up to 0.5 mm
- Resists positive and negative side hydrostatic pressure
- Protects against sewage and industrial wastes
- Less expensive than traditional methods Added to the concrete at time of batching and therefore is not subject to climatic
- It is compatible with slag and pozzolans such as fly ash, GGBS and silica fume
- Improves durability of concrete

### APPLICATION PROCEDURE

- As a guide, a dosage of 0.8 kg per 100kg of cementitious content is recommended.
- Dosage up to 2kg per 100kg of cementitious content can be used in special requirements.
- Ensure water / cement ratio is less than 0.5, Addition of good superplasticizer from the Redbrawn 600 products range is advised to achieve minimum water/cement ratio.
- ADMIX (P) can be added in T.M. in Plot/site before pouring concrete.
- Place concrete quickly and compact it well. Ensure complete curing with a REDICURE curing compound.

### COMPLIANCE STANDARD

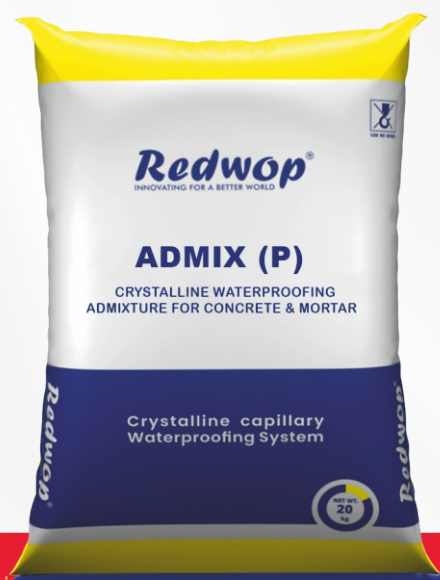
- IS 9103:1999, CM/L – 7600149811

### PROPERTIES

Appearance	Grey Powder
Bulk Density in g/cm <sup>3</sup>	1.350 @25°C
Chloride content	<0.1 %
Alkali Content	<10%
Water Penetration	Reduced more then 90%

### PACK SIZE

- 20kg bag





# VALUABLE CUSTOMERS

- IJM CONCRETE PRODUCTS PRIVATE LIMITED
- GODREJ & BOYCE MFG. CO. LTD.
- DESIGNER CONCRETE PRIVATE LIMITED
- RAGHUNANDAN CONSTRUCTION COMPANY
- CMV INFRAPROJECTS PRIVATE LIMITED
- SHREERAM ENTERPRISES
- SKY MIX CONCRETE
- B.T.KADLAG CONSTRUCTIONS PVT.LTD.
- CONSTROTECH RMC
- SHREE KRISHNA TRADERS
- SUNRISE CONCRETE SUPPLY
- BUILDCON MIX
- SHIVAM ENTERPRISES-NASHIK
- ROSHAN VASANT TUNGARE
- WAIKAR RMC
- SSS STONE CRUSHER PVT LTD
- SHRI NARAYAN'S ASSOCIATE
- URBAN INFRA SOLUTIONS
- NITYA ENTERPRISES
- J N M INFRA SERVICE
- A S INFRATECH
- JAISHREERAM INFRAKING PRIVATE LIMITED
- DHRUV ENGINEERS & CONTRACTOR
- CRYSTAL READYMIX
- B.R.CONSTRUCTION
- SUNRAJ CONSTRUCTION/ SUNRAJ READYMIX
- OM SHIVAM BUILDCON PVT. LTD.
- JNM INFRASERV PRIVATE LIMITED
- RADHIKA ENTERPRISES
- ARISINFRA SOLUTIONS LIMITED
- SMARNIYA INFRA VENTURE PRIVATE LIMITED
- SRP INFRA SOLUTIONS PRIVATE LIMITED
- SETHIA INFRASTRUCTURE PVT. LTD.
- JAYDEEP CONSTRUCTION
- A. P. CONSTRUCTION
- SPBG CONCRETES
- CRYSTAL CONCRETE INFRA
- SKYCRETE INFRA LLP
- TECHNOCRETE INDIA PRIVATE LIMITED
- TAPI STEEL FABRICATORS
- SAIRAJ BUILDING MATERIAL SUPPLIERS

- BLUE STAR BUILDING MATERIAL PVT LTD
- BRAMHGIRI INFRA LLP-ONE BUILDCON
- SHREE MAHAKAL RMC LLP-MOONASH INFRA PRIVATE LIMITED
- SUPER RMC BUILDCON PRIVATE LIMITED
- RADHIKA INFRA PROJECT
- VISHWAJEET INFRA
- BHAIKAVNATH CONSTRUCTION
- MAA BHAWANI CONSTRUCTION
- D K SINGH CONSTRUCTION
- ADBER INFRA INDIA PRIVATE LIMITED
- SS INFRAAAKASH DEVELOPERS
- NARAYAN SETHIA CONSTRUCTIONS
- M.R.CONSTRUCTIONS
- ETHIA DEVELOPERS
- M/s ELEVATE BUILDING SOLUTIONS LLP
- ONBV BUILDCON
- MEHAN INFRASTRUCTURE PRIVATE LIMITED
- SKCON ENTERPRISES
- LICHADE AND DAUGHTERS INFRA PROJECT PVT. LTD.
- SRI VENKATESHWARA SMART BUILDING SOLUTIONS PVT. LTD.
- UTTAMRAO SHAMRAO PUKHALE
- ADITYA INFRACON
- KSPM INFRA PRIVATE LIMITED
- VIDYA ENTERPRISES
- UNIQUE INFRAS
- HREE SAMARTH DHONDIRAJ MAHARAJ RMC PRIVATE LIMITED
- SHRI SAI DATTA CONSTRUCTIONS
- RAHUL ENTERPRISES
- 207 ACRES CONSTRUCTION CO
- AEMKAY INFRA RMC
- VISION INFRA
- SUCHINTAN DEVELOPERS
- SHREE SAI SHRADDHA CONSTRUCTION
- DATTA SAI STONE CRUSHER
- CIVIL DECK INFRAPROJECTS PRIVATE LIMITED
- MAULI SOLAR SYSTEMS
- WAMI BUILDCON
- SHIVSHAMBHO INFRAPROJECTS PRIVATE LIMITED
- MISTY HILLS HOTELS LLP
- RUBAIR BALLOONS INDIA PRIVATE LIMITED
- ARADHYA CONCRETE PRODUCTS
- ULTRATECH CEMENT LIMITED - MAHARASHTRA

## SOLUTIONS FOR EVERY SECTOR



**Building**



**Airport**



**Railway**



**Roadway**



**Marine Structure**



**Defence Structure**



**Dam & Irrigation**



**Oil & Gas Plant**



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