



World Class
CONCRETE ADMIXTURES
for Shaping up **Sustainable Tomorrow**

DRS Chemicals LLP

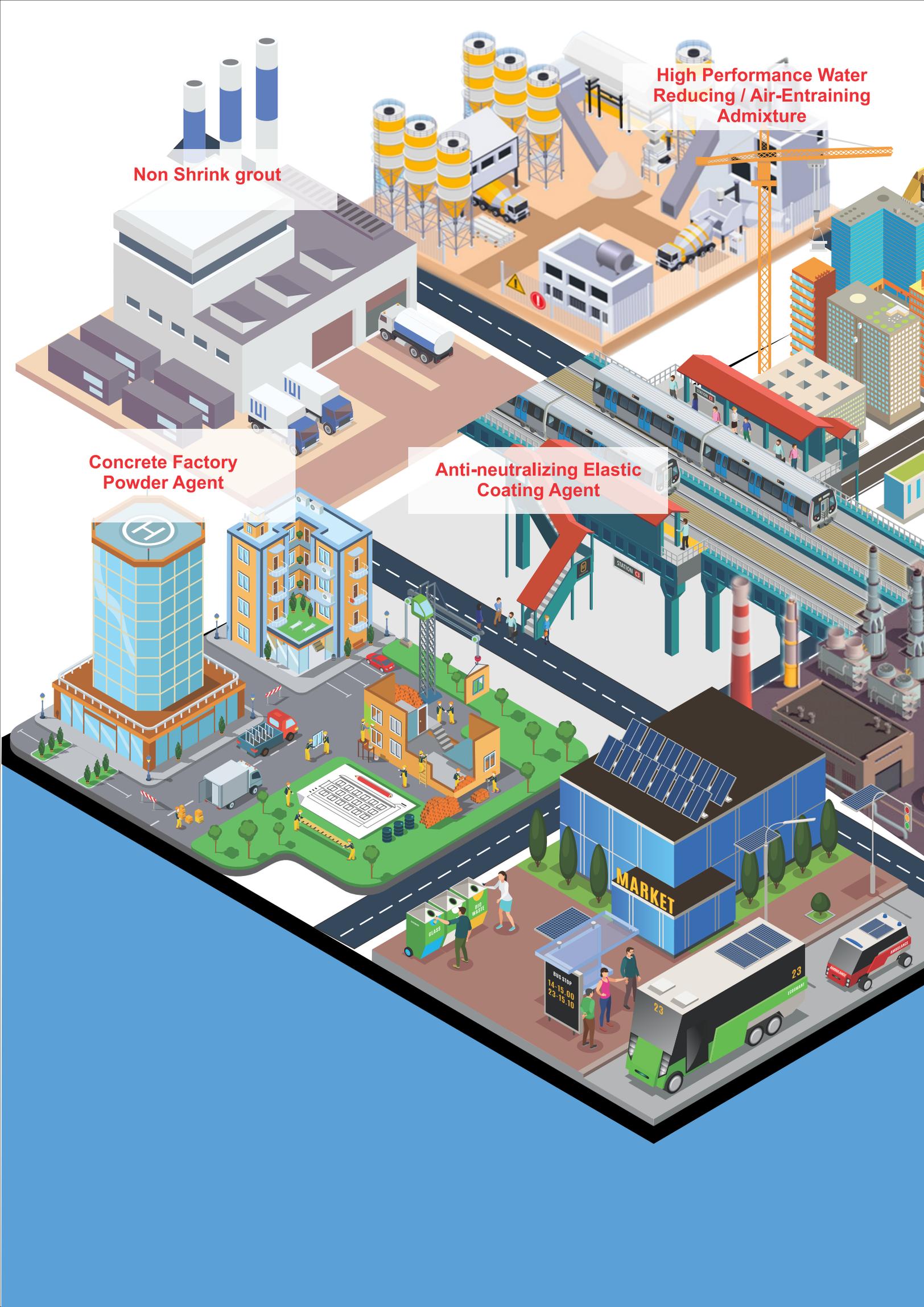
www.drschemicals.com

Non Shrink grout

High Performance Water Reducing / Air-Entraining Admixture

Concrete Factory Powder Agent

Anti-neutralizing Elastic Coating Agent





**Dam Construction
Waterproofing Admixture**

**Superplasticizer
Ready Mix Concrete
Waterproofing Agent**

Flooring

**Anti-corrosive Admixture
Anti-washout Concrete
Admixture**



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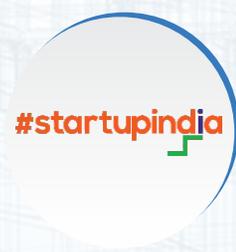


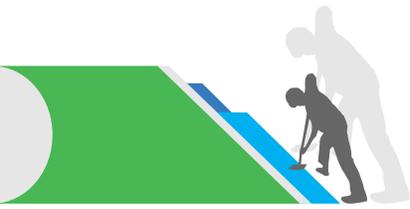
Producing more than 10,000 tons of admixtures every Year

NABL Certified Lab & Equipment

Highly Qualified Technical Team

Meritorious Growth in a very short time





*“It is not the beauty of a building you should look at; it is the **construction** of the foundation that will stand the test of time.” - David Allan Coe*

DRS Chemicals is one of the leading manufacturers of complete range of specialised construction chemicals in India that cater to a range of sectors including commercial, industrial, residential, marine and infrastructure. We produce cutting edge polymers with varieties of chemical structures to provide customized formulation and comprehensive technical solutions for manufacturing of concrete admixtures.

Our products are supplied to a wide variety of industries to fulfil their needs for admixture chemicals, namely; railways, highways, bridges, dam, tunnel and high-rise buildings. At DRS Chemicals, we are with you throughout your journey, starting from providing initial solutions to constantly expanding our product lines to meet new needs for your business. With our fully equipped NABL Certified laboratory, we are capable of designing new products from concept to full production. DRS Chemicals works hand in hand with customers to enhance their competitive edge.

At present our current production capacity of various admixtures is 10,000 Tons a Year. Our expertise in manufacturing & trading of chemicals over the years has enabled us to understand client requirements precisely.

We value quality at utmost level and all products are delivered only after going through the testing phase of 28 days.



has built its Operations in
3 PARAMETERS

INNOVATIVE SOLUTIONS

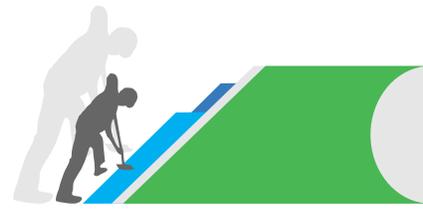
Research and Development is a constant phenomenon at DRS. Our state of the art technology lab enables us to design and develop products, to cater the needs of evolving construction industry.

DELIVERING QUALITY PRODUCTS

Dedicated to continuous improvement in all areas of our daily operations.

SERVICE – Quick and efficient response to customers unique needs and project requirements



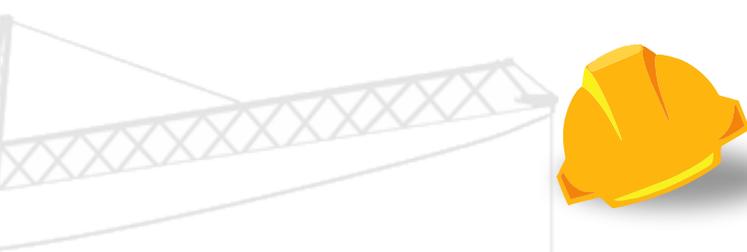


CONCRETE TECHNOLOGY & ADMIXTURES

CONCRETE IS THE CONSTRUCTION MATERIAL OF THE CENTURY and it plays a crucial role in all our building and infrastructure requirements. In modern-day construction, the use of concrete is important because the structures derive their strength and stability from concrete.

Concrete is a durable material when properly formulated, quality controlled, professionally placed and treated. It is then capable of withstanding a majority of the demands placed upon it. Concrete building and infrastructure are exposed to a very wide range of stresses and strains. It starts at very early stage with the cement hydration in the environmental conditions and continues throughout the life span of the structure. Forces, loads, thermal effects, water, contamination, erosion, traffic, abrasion, vibration, fatigue and impact all place huge demand on the concrete's ability to last. To resist all these factors water reducing admixtures play a significant role.

Concrete Admixtures and additives is a chemical compound produced by DRS Chemicals which is added in a very little quantity to concrete at the time of batching or mixing, to improve the strength and durability of concrete.



ADMIXTURES

We Are Dealing With

POLYCARBOXYLATE SUPERPLASTICISER

RETARDING AGENT

PUMPING AGENT

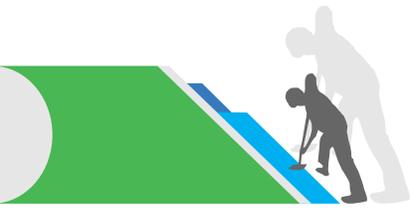
AIR ENTRAINING AGENT

FOAMING AGENT

ANTI FREEZING AGENT

EARLY STRENGTH WATER REDUCING AGENT





Ready Concrete Mix & Captive Batching Plant Concrete

Ready-Mix Concrete is concrete that is manufactured in a batch plant, according to a set engineered mix design. Ready-mix concrete is often used instead of other materials due to the cost and wide range of uses in building, particularly in large projects like high rise buildings and bridges.

The performance of a concrete mix can be altered by use of admixtures. Admixtures can be used to reduce water requirements, entrain air into a mixture, to improve surface durability, or even superplasticise concrete to make it self-levelling, as self-consolidating concrete, the use of admixtures requires precision in dosing and mix design, which is more difficult without the dosing/measuring equipment and laboratory backing of a batching plant, which means they are not easily used outside of ready-mixed concrete.

The factors influencing workability retention:

- Type of cement and its content in concrete
- Water-cement ratio
- Grade of concrete
- Type of admixture
- Concrete temperature



DRS Chemical offers DR FLOW

A state-of-the-art product developed to fulfill the need for concrete with long workability retention of 4 hours plus. The product exhibits high water reducing capability for a given concrete mix design and requires only dosage optimization at site.

- ▲ Suitable for high volume replacement of GGBFS or fly ash in concrete mix.
- ▲ To produce free flow concrete for M35 and lower grade of concrete.
- ▲ Workability retention of more than 4 hours can be achieved.
- ▲ Compressive strength - 30% of the characteristic strength in 24 hours.
- ▲ Single admixture for normal and free flow concrete.

Complies with IS 9103-1999 and ASTM C 494

Type F and G depending on dosage.

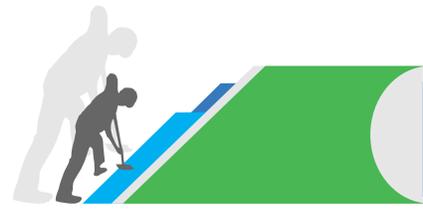


High Rise Building

Metro Construction

Shear Wall Cons

Bridges



Advantages

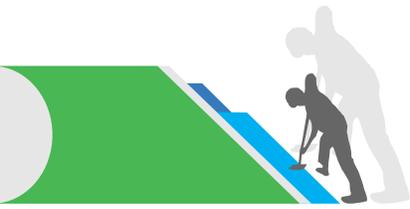
- ▲ Compatible with a wide range of cement brands.
- ▲ Suitable for all types of cement replacement such as fly ash, GGBFS and microsilica.
- ▲ Single admixture for all grades of concrete irrespective of type of workability.
- ▲ Presence of built-in VMA, providing improved resistance to bleeding and segregation.
- ▲ Reduced shrinkage.
- ▲ Increased durability.
- ▲ Eliminate stickiness in concrete due to presence of high volume of fines or clay.

Applications

DRS Chemicals for long workability concrete goes a long way in supporting construction activity across the infrastructure and high-rise building segments.

- ▲ Highly suitable for Ready Mix Concrete Industry due to long workability retention
- ▲ All infrastructure construction such as metros, road & railway bridges and power plants
- ▲ High-rise residential or commercial structures
- ▲ Shear wall constructions





Self Compacting Concrete

Self-compacting concrete (SCC) can be defined as fresh concrete that flows under its own weight and does not require external vibration to undergo compaction. It is used in the construction where it is hard to use vibrators for consolidation of concrete. Filling and passing ability, segregation resistance is the properties of self-compacting concrete.

Quality Test

Self-Compacting Concrete is characterized by filling ability, passing ability and resistance to segregation. Many different methods have been developed to characterize the properties of SCC. No single method has been found until date, which characterizes all the relevant workability aspects, and hence, each mix has been tested by more than one test method for the different workability parameters.



DRS Chemical offers DR FLOW PLUS

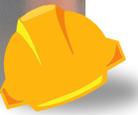
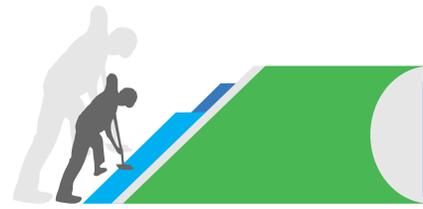
DR Flow Plus proved itself as the best Self Compacting Cement after qualifying all level of tests. Low viscosity high performance polycarboxylic technology based chemical admixture.

- ▲ Able to flow under its own weight and completely fill the formwork.
- ▲ Improved adhesion to reinforcing and prestressing steel
- ▲ Moves effortlessly without vibrator
- ▲ Complies with IS 9103-1999 and ASTM C 494
- ▲ Type F and G depending on dosage
- ▲ Long workability retention
- ▲ Segregation resistance
- ▲ High strength

DR Flow Plus should be used with viscosity modifying agent DRSmix 600

Applications





SN	METHOD	PROPERTY	TYPICAL VALUE*
1	Slump-flow by Abrams cone	Filling Ability	725mm
2	T50cm slump flow	Filling Ability	4 sec
3	J - Ring	Passing Ability	5mm
4	V-Funnel	Filling Ability	8 Sec
5	V-funnel at T5minutes	Segregation Resistance	+ 3
6	L - Box	Passing Ability	0.9
7	U – Box	Passing Ability	20mm
8	Fill Box	Passing Ability	

Advantages

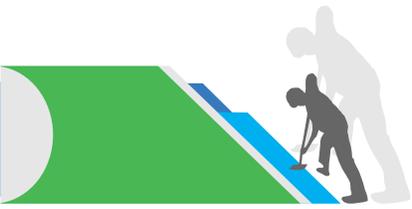
- ▲ Bleeding and segregation resistance with built-in VMA
- ▲ Compatible with a wide range of cement brands
- ▲ Ideal for congested reinforcement concreting
- ▲ Suitable for temperature control concrete
- ▲ Accommodates cement replacement in concrete mix
- ▲ Reduces labour and equipment requirements
- ▲ Increases durability



- ▲ Residential or commercial high-rise towers
- ▲ Multi-tower complexes
- ▲ Suitable for thin section concreting
- ▲ Architectural elements having intricate formwork
- ▲ Where concrete requires limited finishing after de-shuttering

Applications

Self Compacting Concrete is highly suitable for concreting subjected to congested reinforcement and where the possibility of using vibrators for compacting concrete is limited.



Sprayed concrete is also used in the New Austrian Tunnelling Method (NATM) to provide temporary support in soft or weak ground.

In some countries, fibre-reinforced sprayed concrete (FRS) is used to provide both the primary and long term support of tunnels. The approach to the design of both steel and macro-synthetic FRS is first to specify the concrete, usually in terms of its characteristic cube or cylinder compressive strength and toughness parameters, and then to determine the thickness (or thicknesses), and the type and amount of fibre required, to comply with these specified material requirements and to achieve the particular design objectives. This approach allows FRS material(s) to be specified in the first instance which the designer can be reasonably confident will achieve the specified requirements consistently during construction, and at reasonable cost.

Speeding Progress with Spray Concrete



DRS Chemical offers

DR CRETE is an alkali-free shot create admixture that provides set acceleration and less rebound loss.



Advantages

- ▲ High strength, low permeability, high durability
- ▲ Reduction in formwork saving time and money
- ▲ High early strength gain
- ▲ Low water / cement ratio
- ▲ Good adhesion and bond strengths
- ▲ Ability to convey material over 200 metres to point of application

Tunnel Lining

After tunnel formed by drilling or blasting and spray concreted, the newly formed tunnel surface has to be lined with concrete (M40 grade) lining, using Auramix range, to further strengthen the sprayed concrete.

Applications

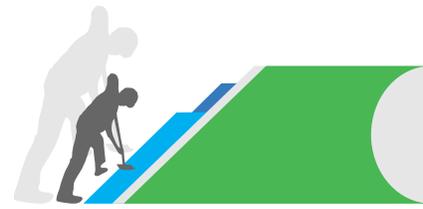


Concrete Spray On Embankment

Railway Tunnel

Tunnel Lining

Tunnel Spray Concrete



Precast Concrete

Precast concrete is created off-site using a mold. That's the main difference between precast concrete and site cast concrete, which is poured into its final destination on site. Here is a simplified overview of the precast concrete process:

- ▲ Precast concrete is poured into a wooden or steel mold with wire mesh or rebar. This mold may also have prestressed cable, if needed.
- ▲ It is cured in a controlled environment — usually at a plant.
- ▲ Once finished, the precast concrete is transported to a construction site and put into place.



They are also among the most versatile products in construction, combining a strong structure with the ability to:

- ▲ Choose any combination of color, form or texture
- ▲ Integrate facades
- ▲ Meet compatibility requirements for historic structures
- ▲ Create everything from small sections to long open spans
- ▲ Be recycled or reused upon removal or replacement

DRS Chemical offers DR CAST



DR CAST 162 is a low-viscosity, single component PCE based admixture for low slump concrete that enables obtaining 50% of the characteristic strength in 24 hours. This makes it an ideal admixture for precast segments such as underground metro rings and precast walls and slabs for buildings. structures having congested reinforcement.

DR CAST 405 is a low-viscosity, single component PCE-based admixture for normal slump concrete with slump retention and enables obtaining 50% of the characteristic strength in 24 hours. This makes it ideal for large volume of concreting in precast industries.

Applications



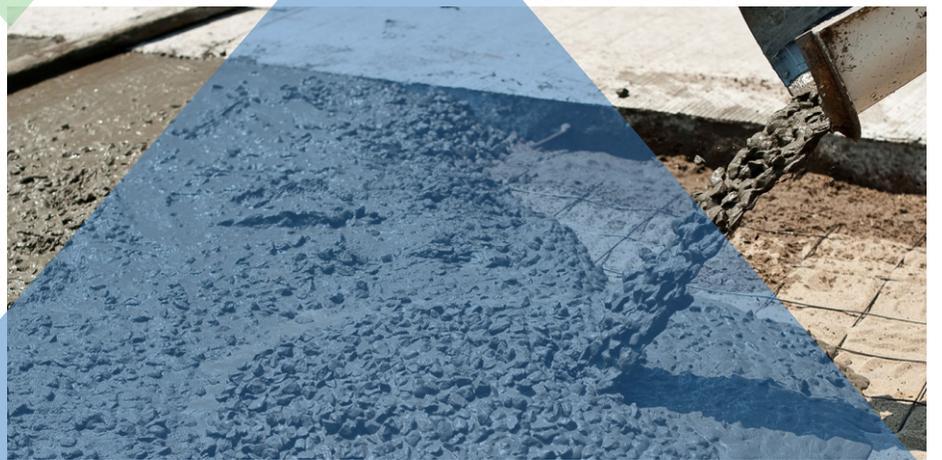
PRODUCT SELECTION CHART

Product Name	Description	Uses	Dosage	Packaging
DrFlow198	PCE Based Superplasticizer for high grade concrete. IS 9103-1999 and BS 5075 part 3 and ASTM C-494 type F and G	<ul style="list-style-type: none"> •For production at site, •increases workability, cohesion and easy pumpability without increasing water. •Water reduction upto 25-40% based on dosage. 	0.4 - 1 kg / 100 kg of cementitious materials, depends on local testing <ul style="list-style-type: none"> •Water reduction upto 25-40% based on dosage. 	200 kg Hdpe Drums, 1000 kg IBC Tanks
DrFlow225	PCE Based Superplasticizer for high grade concrete. IS 9103-1999 and BS 5075 part 3 and ASTM C-494 type F and G	<ul style="list-style-type: none"> •For production at site, •increases workability, cohesion and easy pumpability without increasing water. •Water reduction upto 25-40% based on dosage. 	0.4 - 1 kg / 100 kg of cementitious materials, depends on local testing	200 kg Hdpe Drums, 1000 kg IBC Tanks
DrFlow315	PCE Based Superplasticizer for high grade concrete. IS 9103-1999 and BS 5075 part 3 and ASTM C-494 type F and G	<ul style="list-style-type: none"> •Long Distance Deliveries, •Suitable for RMC Plants, •increases workability, cohesion and easy pumpability without increasing water. •Water reduction upto 25-40% based on dosage. 	0.4 - 1 kg / 100 kg of cementitious materials, depends on local testing	200 kg Hdpe Drums, 1000 kg IBC Tanks
DrFlow414	PCE Based Superplasticizer for high grade concrete. IS 9103-1999 and BS 5075 part 3 and ASTM C-494 type F and G	<ul style="list-style-type: none"> •Long Distance Deliveries, •Suitable for RMC Plants, •increases workability, cohesion and easy pumpability without increasing water. •Water reduction upto 25-40% based on dosage. 	0.4 - 1 kg / 100 kg of cementitious materials, depends on local testing	200 kg Hdpe Drums, 1000 kg IBC Tanks
DrFlow198 +	PCE Based Hyper plasticizer for high grade concrete. IS 9103-1999 and BS 5075 part 3 and ASTM C-494 type F and G	<ul style="list-style-type: none"> •For production at site, •increases workability, cohesion and easy pumpability without increasing water. •Water reduction upto 25-40% based on dosage. 	0.4 - 1 kg / 100 kg of cementitious materials, depends on local testing	200 kg Hdpe Drums, 1000 kg IBC Tanks
DrFlow225 +	PCE Based Hyper plasticizer for high grade concrete. IS 9103-1999 and BS 5075 part 3 and ASTM C-494 type F and G	<ul style="list-style-type: none"> •For production at site, •increases workability, cohesion and easy pumpability without increasing water. •Water reduction upto 25-40% based on dosage. 	0.4 - 1 kg / 100 kg of cementitious materials, depends on local testing	200 kg Hdpe Drums, 1000 kg IBC Tanks
DrFlow315 +	PCE Based Hyper plasticizer for high grade concrete. IS 9103-1999 and BS 5075 part 3 and ASTM C-494 type F and G	<ul style="list-style-type: none"> •Long Distance Deliveries, •Suitable for RMC Plants, •increases workability, cohesion and easy pumpability without increasing water. •Water reduction upto 25-40% based on dosage. 	0.4 - 1 kg / 100 kg of cementitious materials, depends on local testing	200 kg Hdpe Drums, 1000 kg IBC Tanks
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DrCast162	PCE based Super Plasticizer for blocks and Pavers	<ul style="list-style-type: none"> •Suitable for Pre-Cast industry, •Below M20 grade, •Early Strength and help early demoulding. •Water reduction upto 25-40% based on dosage. 	1-3% of cementitious materials, depends on local testing	200 kg Hdpe Drums, 1000 kg IBC Tanks
DrCast216	PCE based Super Plasticizer for blocks and Pavers	<ul style="list-style-type: none"> •Suitable for Pre-Cast industry, •Below M30 grade, •Early Strength and help early demoulding. •Water reduction upto 25-40% based on dosage. 	1-3% of cementitious materials, depends on local testing	200 kg Hdpe Drums, 1000 kg IBC Tanks
DrCast324	PCE Based Hyper Plasticizer for Pre-cast Industry	<ul style="list-style-type: none"> •Suitable for Pre-Cast industry, •Below M40 grade, •Early Strength and help early demoulding. •Water reduction upto 25-40% based on dosage. 	1-3% of cementitious materials, depends on local testing	200 kg Hdpe Drums, 1000 kg IBC Tanks
DrCast405	PCE Based Hyper Plasticizer for Pre-cast Industry	<ul style="list-style-type: none"> •Suitable for Pre-Cast industry, •Below M40 grade, •Early Strength and help early demoulding. •Water reduction upto 25-40% based on dosage. 	1-3% of cementitious materials, depends on local testing	200 kg Hdpe Drums, 1000 kg IBC Tanks
DrCrete405	Shotcrete	<ul style="list-style-type: none"> •Initial support and final lining for underground plants, such as subway engineering, underground tunnel etc. •Slope and slope works and various foundation works for roads, houses, DAMs •Early Strength and help early demoulding. •Water reduction upto 25-40% based on dosage. 	Test the appropriate dosage and setting time as per requirement before use	200 kg Hdpe Drums, 1000 kg IBC Tanks



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