

ADVA® CAST 575

High Range Water Reducing Admixture

DESCRIPTION

ADVA® Cast 575 is a high efficiency, low addition rate polycarboxylate-based high-range water reducer designed for the production of a wide range of concrete mixes, from conventional to Self-Consolidating Concrete (SCC). It is designed to impart extreme workability without segregation to the concrete.

Meets or exceeds the requirements of ASTM C494 Type A & F, and ASTM C1017 Type I. ADVA® Cast 575 is supplied as a ready-to-use liquid that weighs approximately 1.1 kg/L (8.9 lbs/gal). ADVA® Cast 575 does not contain intentionally added chlorides.

ADVANTAGES

- Excellent dosage efficiency, moisture control and air control
- Superior air entrainment control
- Enhanced concrete cohesiveness with low viscosity for rapid placement
- Superior finish on cast surfaces
- Enhanced strength development

FIELDS OF APPLICATION

- Formulated to impart improved workability to the concrete and to achieve high early compressive strength as required by the precast industry.

Method of Use

Dosage

- ADVA® Cast 575 is an easy to dispense liquid admixture. Dosage rates can be adjusted to meet a wide spectrum of concrete performance requirements. Addition rates for ADVA® Cast 575 can vary from 130 to 650 mL/100 kg (2 to 10 fl oz/100 lbs) with the type of application, but will typically range from 200 to 390 mL/100 kg (3 to 6 fl oz/100 lbs) of cementitious.
- Should conditions require using more than the recommended addition rate, please consult your representative.
- Mix proportions, cementitious content, aggregate gradations and ambient conditions will affect ADVA® Cast 575 dosage requirements. If materials or conditions require using more than the recommended addition rates, or when developing mix designs for Self-Consolidating Concrete please consult your representative for more information and assistance.

Additional Usage Recommendations

- ADVA® Cast 575 is a plant-added superplasticizer that is formulated to impart improved workability to the concrete and to achieve high early compressive strength as required by the precast industry. ADVA® Cast 575 can be used for the production of Self Consolidating Concrete in precast/prestressed applications and may be used in conventional concrete production.
- ADVA® Cast 575 may be used in low water-cementitious ratio applications where concrete stability and improved tolerance to concrete material variability are required.
- ADVA® Cast 575 may be used to produce concrete with very low water/cementitious ratios while maintaining normal levels of workability.

Equipment

- A complete line of accurate, automatic dispensing equipment is available.

ADVA® CAST 575

High Range Water Reducing Admixture

Complimentary Products

- ADVA® Cast 575 is compatible with most admixtures as long as they are added separately to the concrete mix. However, ADVA® products are not recommended for use in concrete containing naphthalene-based admixtures including DARACEM® 19 and DARACEM®100 and melamine-based admixtures including DARACEM® 65. In general, it is recommended that ADVA® Cast 575 be added to the concrete mix near the end of the batch sequence for optimum performance. Different sequencing may be used if local testing shows better performance. Please see [Technical Bulletin TB-0110](#), *Admixture Dispenser Discharge Line Location and Sequencing for Concrete Batching Operations* for further recommendations.
- Pretesting of the concrete mix should be performed before use and as conditions and materials change in order to assure compatibility with other admixtures, and to optimize dosage rates, addition times in the batch sequencing and concrete performance. For concrete that requires air entrainment, the use of an ASTM C260 air-entraining agent (such as DARAVAIR® or DAREX® product lines) is recommended to provide suitable air void parameters for freeze-thaw resistance. Please consult your representative for guidance.

CHARACTERISTICS

Product Nature	Liquid
Color	Blue green
Shelf life	12 months
Specific gravity (25°C)	1,079
pH (25°C)	5,20

PRECAUTIONS

- ADVA® Cast 575 will freeze at approximately 0°C (32°F) but will return to full functionality after thawing and thorough mechanical agitation.

SAFETY

Prior to any use, please read carefully the Safety data Sheet.

PACKAGING

- Bulk
- 210L Drum (55 gallons)
- IBC 1000L

ADDITIONAL INFORMATION

ADVA® Cast 575 ASTM C494 Type F High-Range Water Reducer Test Data

	US UNITS - CONTROL	US UNITS - ADVA® CAST 575	METRIC - CONTROL	METRIC - ADVA® CAST 575
Cement (pcy) (kg/m³)	517	517	307	307
Coarse aggregate (pcy) (kg/m³)	1944	1944	1153	1153
Fine aggregate (pcy) (kg/m³)	1144	1214	679	720
Water (pcy) (kg/m³)	248	211	147	125
w/cm	0.48	0.41	0.48	0.41
Slump (inches) (mm)	3.5	3.25	89	83
Plastic air (%)	5.4	5.5	5.4	5.5
Compressive strength				
1 day (psi) (MPa)	1460	2050	10.1	14.1
7 day (psi) (MPa)	4380	6040	30.2	41.6
28 day (psi) (MPa)	5570	7270	38.4	50.1
Initial set time (hr:min)	4:56	3:57	4:56	3:57
Length change 28 day (%)	-0.027	-0.029	-0.027	-0.029
Freeze-thaw resistance (RDME %)	88	91	88	91

The information contained in this technical data sheet is given to the best of our knowledge and the result from extensive testing - which were conducted in order to remain as objective as possible. However, it cannot, in any case, be considered as a warranty involving our liability in case of misuse or any different use of our products, other than those from the "Application" paragraph of this technical data sheet. Some application tests should be carried out before using the product to ensure that the methods of use and conditions of application of the product are satisfactory. Our technical assistance is at the disposal of the users.