



**SG-100U**

## Q-MAX™ SG-100 Ultra

### HIGH PERFORMANCE WATER REDUCING ULTRA SUPERPLASTICIZER

#### OVERVIEW

High performance water reducing ultra superplasticizer is based on polycarboxylic ether (by PCE). QMAX SG 100 Ultra has been developed to reduce water demand while mixing concrete chloride free. The product is specially designed to improve workability without increasing water. Water reduction has significant effect on improving compressive strengths and durability.

#### USAGE

1. For general concrete structures of civil and architectures
2. To improve workability without increasing water
3. To enhance compressive strengths and durability of concrete
4. Optimized KS F 2560 / ASTM C 494 Type F & G

#### PRECAUTIONS

- ▶ In case of mixing with other content or adding with an agent with QMAX SG 100 Ultra, prior consultation with QMAX engineer is required.
- ▶ In case of using abnormal over range dosage, prior consultation with QMAX engineer is required as well. Do not dosage more than 5% into cement content.
- ▶ Please refer to our MADS specified in detail described on environment, safety & health issues

#### FEATURES & ADVANTAGES

1. Excellent efficiency in water reduction during mixing concrete
2. Water reduction significantly improves compressive strengths and long term durability
3. Obtains required workability and slump with reducing water have effect on reducing cement quantity
4. As it is chloride free, high resistance from corrosion condition is achieved in reinforce concrete structures
5. Highly effective for constraining of concrete crack, drying shrinkage & bleeding
6. Reducing slump loss in place and delivery of concrete
7. Self compaction effect can save manpower cost for placing concrete
8. No segregation within congestion in reinforcement area and complicated shape structures
9. Reduces vibration and finishing labor

#### TECHNICAL DATA

1. Type: Polycarboxylic ether for concrete admixtures
2. Color: Light brown
3. Aspect: Liquid
4. Storage: Store in the tank in a place far away from direct sunlight, freezing damage

#### PACKAGING

250 kg/DRUM, Tank Lorry



## DOSAGE

Normally dosage recommended range of QMAX SG 100 Ultra is 0.5 ~2.0 % per unit weight of cement content and not more than 5% of cement content. Though the recommended range of dosage and optimum dosage of QMAX SG 100 Ultra should always be determined by trial mixes design of concrete because of variations in concrete materials, site conditions and weather conditions.

## EFFECTS OF DOSAGE

### Concrete Mix Design

Description	Slump	w/c %	s/A %	Unit Weight (kg/m <sup>3</sup> )				A.D (%)
				Water	Cement	Sand	Gravel	
Standard	180.0	65.6	46.9	210	320	830	940	-
Test	185.0	53.1	45.6	170	320	820	980	C*0.7%

### Test Result

Test Item	Unit	Test Methods (ASTM C494)	Results
<b>Water Content</b>	<b>(%)</b>	<b>95</b>	<b>76</b>
Time of Setting, Deviation from Control	Initial	h:min	1:00
	Final	h:min	1:00
Compressive strength, Percentage of Control	1 day	%	125
	3 days	%	125
	7 days	%	115
	28 days	%	110
	6 months	%	100
	1 year	%	100
Flexural strength Percentage of Control	3 days	%	100
	7 days	%	100
	28 days	%	100
Length Change, Percentage of Control	%	135	122
Relative durability factor	%	80	84

## TECHNICAL SERVICES

Q-MAX™ Customer Service Department has a team of experienced advisors available to provide on-site advice both at the specification stage and during application. Detailed specifications can be provided for specific projects or more general works. Site visit and on-site demonstrations can be arranged on request.

## SALES SERVICES

Q-MAX™ products are distributed throughout Bangladesh via selected distributors and dealers. Please contact the relevant Sales team for all product orders and enquiries.



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