



KUT PLAST 217

High Range Water Reducing Admixture

ADM - 06 - 0104

DESCRIPTION

KUT PLAST 217 is based on a modified ligosulphonate. Supplied as a brown liquid it is instantly dispersible in water.

KUT PLAST 217 will, depending on dosage level and mix design provide flowing concrete or high strength concrete, accelerated early age strength development and waterproof concrete.

USES

KUT PLAST 217 can provide upto 20% reduction in free water without loss of workability, resulting in reduced permeability and early strength gain. Higher dosages produce self-levelling concrete.

ADVANTAGES

Increased Workability : Reduces placing time, labour and equipment.

High Strength Concrete : Water reduction gives higher strengths without cement increase or workability loss

High Early Strength : Water reduction can double the early age strength.

Reduced Permeability : Reduction of Water reduces porosity giving improved water impermeability.

Surface Finish : Better dispersion of cement particles and increased cohesion minimises segregation and bleeding and gives improved surface finish.

Improved Pumpability : Line friction is reduced by increasing workability and cohesion.

Chloride Free : Safe in reinforced concrete.

STANDARDS

KUT PLAST 217 complies with **BS 5075, 1982**, and **ASTM C-494 Type A**.

TYPICAL PROPERTIES

Calcium Chloride Content : Nil.

Specific Gravity : 1.16 at 20° C.

Air Entrainment : Less than 1% additional air is entrained.

Setting Time : Less than 1 hour retardation at normal dosage.

Cement Compatibility : Compatible with sulphate resisting and other Portland cements.

Durability : Water reduction gives increase in density and water impermeability which improves durability.

Compressive Strength : Reduction in water/cement ratio will result in upto 50% increase in early age compressive strength. See table 2 for typical trial mix results.

Table 1 : Effect of KUT PLAST 217 on workability

Portland cement 330 kg/m³
 Sand (washed) 640 kg/m³
 20 mm gravel 1180 kg/m³
 Ambient temperature 20°C

Dosage Litres /50 kg Cement	Total W/C Ratio	Slump (mm)	Flow Table (cm)	Comp. Strength N/mm ²			Density (kg/M ³)
				1 Day	7 Days	28 Days	
Nil	0.60	50	-	16.0	37.0	45.0	2350
0.15	0.60	110	40	16.5	37.5	46.0	2340
0.35	0.60	180	50	17.0	37.0	46.5	2330

Table 2 : Effect of KUT PLAST 217 on compressive strength at a slump of 45mm

Ordinary Portland cement 330 kg/m³
 Sand (washed) 520 kg/m³
 20-5 mm gravel 1300 kg/m³
 Ambient temperature 20°C

Dosage Litres /50 kg Cement	Total W/C Ratio	Water Red'n %	Air Content %	Comp. Strength N/mm ²			Density (kg/M ³)
				1Day	7Days	28Days	
Nil	0.60	-	1.5	16	30	37	2360
0.30	0.50	17	2.3	20	39	49	2380
0.60	0.45	25	2.5	23	45	55	2400



Specialities Construction
 Chemicals Factory



INSTRUCTION FOR USE

Dosage : The optimum dosage for **KUT PLAST 217** should be determined by site trials with the particular concrete mix under prevailing ambient condition.

As a general guide the dosage is normally:

0.15-0.35 litres/50 kg cement, for flowing concrete.
0.40-0.60 litres/50 kg cement for high strength concrete.

Overdosing : An overdose of double the intended amount of **KUT PLAST 217** will result in very high workability and some retardation, The ultimate compressive strength of the concrete will not be impaired provided cured properly.

Curing : As with all structural concrete, normal curing methods apply.

TECHNICAL SUPPORT

"**ASPEC**" provides technical support service on mix design, admixture selection, evaluation of trials, dispensing equipment etc. Please contact the Technical department in these cases.

Cleaning : Spillages of **KUT PLAST 217** can be removed with water.

PACKAGING

KUT PLAST 217 is supplied in 210 litre drums.

Storage : **KUT PLAST 217** should be protected from extremes of temperature. Should the material become frozen, it must be completely thawed and thoroughly mixed before use. **KUT PLAST 217** has a minimum shelf life of 12 months provided temperature is kept within the range 5° C to 30° C.

PRECAUTIONS

HEALTH AND SAFETY

KUT PLAST 217 is non-toxic. Any splashes to the skin should be washed immediately with water. Any splashes to the eyes should be washed immediately with water and medical advice should be sought.

Fire : **KUT PLAST 217** is non-flammable.

ASPEC endeavours to ensure that any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.

Distributor: