INTRODUCTION:

In recent years the problems of hot weather concreting have been recognized as requiring special codes of practice. Premature stiffening and hardening can create difficulties in discharging, placing, and compacting fresh concrete. Set-retarding admixtures are now used extensively in such situations, particularly in ready-mixed concrete where long hauls in hot weather are involved. They extend the plastic period without subsequently affecting strength gain significantly.

MULTIPLAST SUPER R0112 may be useful in other situations: preventing unsightly "construction joints" by ensuring that the concrete in one "lift" remains plastic long enough for the next lift to be intermixed with it. It may help to reduce maximum temperatures in mass concrete by extending the time over which the heat of reaction is given off. It finds use also in grouts, pumped concrete and other processes.

PRODUCT DESCRIPTION:

MULTIPLAST SUPER R0112 is a special category of water-reducing agent in that, it is manufactured from materials that allow much greater water reduction or alternatively extreme workability of concrete in which it is incorporated. This is achieved without undesirable side effects such as excessive air entrainment or set retardation. **MULTIPLAST SUPER R0112** is used as high range water reducing admixture (super plasticizer) for concrete.

BENEFITS:

MULTIPLAST SUPER R0113 increases early and 28 days strength, if advantage of water reduction is taken. It is used in precast concrete work and in prestressed concrete. Improves cohesion thus aids pumping of concrete. Facilitates rapid placing of concrete with little or no vibration. Makes the concrete denser, hence water tightness and durability is increased.

Increased Workability: **MULTIPLAST SUPER R0113** when incorporated in concrete mixes increases the workability without additional water, thus leading to easy placement and finishing without the risk of segregation and bleeding.

Increased Strength: **MULTIPLAST SUPER R0113** can be used to reduce up to 30% water for a given workability leading to increased in early and ultimate (28

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days) strength. Such high early strength and early stripping of forms leads to increased productivity on precast concrete and the production of high strength concrete without increasing cement content.

STANDERDS:

MULTIPLAST SUPER R0113 is a water reducing admixture for concrete confirming to BS 5075: Part - 3, IS 9103 : ASTM C - 494 Type A & F.

USES:

1. AS A WATER REDUCER: (for increased strength) Reduction in the water cement ratio to maintain designed workability increases strength. The concrete is also denser with lower permeability.

2. AS A WORKABILITY AID: Increased workability can be achieved by using **MULTIPLAST SUPER R0113** for a given water cement ratio which will increase the flow characteristic of the concrete loading to easy placement, compaction and finishing.

3. REDUCTION OF CEMENT CONTENT: **MULTIPLAST SUPER R0113** can be used to reduce cement content to the extent of 15-30% by maintaining the original strength specified and workability and reducing the water content required for the given mix.

4. **MULTIPLAST SUPER R0113** can be used with all types of Portland cements. It has no significant effect on setting time at normal dosage levels. It can be used in mortar grouting of prestressed wires. The normal dosage is 200ml to 800ml per 50 kg of cement. However, the optimum dosage should be determined by site trials. Higher dosages can be used with suitable changes in the mix especially sand to avoid segregation if no water reduction is made. Overdosing up to double the normal dosage levels may lead to retardation of setting times and may tend to segregate and production of ultra fluid concrete.

TYPICAL PROPERTIES:

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Physical State	Brown Liquid
Chloride Content **(IS-456 and BS-5075)**	Nil
Standard	As shown above
Air Entrainment	< 1%
Normal Dosage, per 50 kg cement	200 to 800 ml
Sp. Gravity	1.18

PACKING:

5, 20, 50, 100, 200 kg carboy/drum.

STORAGE:

Store in dry, frost-free conditions at moderate temperatures not greater than 25 ºc.

SHELF LIFE:

Minimum one year if stored below 30 ºC in original container and stored under shade.

WARRANTY

Multichem warrants **MULTIPLAST SUPER R0113** to be free from manufacturing defects as defined in this warranty. Manufacturing defects are considered to be those defects that occur due to the quality of the ingredients or from the manufacturing process itself. This warranty does not include labor costs and other costs or expenses associated with the addition of **MULTIPLAST SUPER R0113**.

Because the Multichem does not perform the actual installation, it cannot be held responsible for the results of the application. Multichem specifically disclaims problems that occur due to weather conditions, structural movement, structural design flaws and application techniques.

This warranty is in lieu of all other warranties expressed or implied including the warranty of merchantability and fitness of purpose and of all other obligations or liabilities on Multichem part. Multichem neither assumes nor authorizes any person to assume for Multichem any liability in connection with the sale and installation of MULTIPLAST SUPER R0113.

Because of constant improvement of manufacturing techniques and formulations, Company reserves rights to change this datasheet and its contents without prior notice.

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