

**MELCHEM** is a water-soluble melamine based high-range water reducing admixture. (Superplasticizer)

**MELCHEM** can reduce mixing water up to 30%, producing high strength, low water/cement ratio concrete which can be placed at normal levels of workability or it can be added to a mix to produce flowing concrete with increased strength.

**MELCHEM** is chloride-free and non-corrosive.

**MELCHEM** is recommended for use in all concretes, especially reinforced/prestressed and post-tensioned concretes.

## **APPLICABLE STANDARDS**

General Resource Technology's **MELCHEM** is manufactured and conforms to the specifications of ASTM C 494, Type A and F, and AASHTO M 194.

## **ADVANTAGES**

### **Ready-Mix Industry Benefits**

- Workability is increased with no loss of strength.
- Desired strengths can be obtained with less cement and without the loss of workability.
- Recommended for concrete to be pumped or tremied.
- Cohesion of mix is improved.
- Shrinkage cracking is reduced.
- Reduced labor needed for placement, truck turnaround is faster.

### **Prestressed/Precast Industry Benefits**

- Early strength is accelerated and allows for early release of beds.
- Reduced surface voids.
- Type I cement may be used in place of Type III.
- Cracking is reduced.
- Increased use of forms.

### **Hardened Concrete**

- Reduced shrinkage.
- Reduced permeability and increased durability.
- Increased early and ultimate strengths.

## **DOSAGE RATES**

**MELCHEM** dosage rate will vary depending upon the amount of water-reduction and workability desired.

### **Flowing Concrete Applications:**

6-18 oz per 100 wt. of cementitious material. Job site added to concrete with a 2" slump minimum and completely mixed, then placed.

### **Prestressed/Precast applications:**

6-25 oz per 100 wt of cementitious material, added with the mixing water.

## **TECHNICAL SERVICE**

General Resource Technology has trained representatives as well as technical consultants available to all specifiers and users to assist with field use and promotion, specifications, and dispenser services. General Resource Technology highly recommends that these services be utilized to ensure maximum performance and benefit while using **MELCHEM**.

# Melchem

## Superplasticizer

### COMPATIBILITY

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**MELCHEM** in both air-entrained and non air-entrained concrete is compatible with Portland cement, fly ash, microsilica, calcium chloride, and fibers. Controlled retardation of setting time can be achieved by varying dosages of water-reducing or set-controlling agents used in conjunction with **MELCHEM**. Caution should be exercised when using **MELCHEM** in combination with water-reducing admixtures at temperatures below 65°F.

### SPECIFICATION SUGGESTIONS

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All concrete shall contain **MELCHEM**, ASTM C-494 Type A and F, for site-added flowing concrete/or all concrete shall use **MELCHEM** to reduce the water/cement ratio and provide workable concrete.

### AVAILABILITY

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**MELCHEM** is available in bulk or 55 gallon drums.

General Resource Technology will install, service, and maintain dispenser systems for bulk admixture purchasers.

### HANDLING

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**MELCHEM** is a melamine-based chemical formulation which has been found to be environmentally safe. Care should be exercised and goggles or protective eyewear are recommended. MSDS are available.

### WARRANTY

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General Resource Technology warrants **MELCHEM** to be free from defects in materials and manufacture. General Resource Technology is not responsible for conditions outside its control, including other materials, workmanship, design, inspection, supervision, labor, ambient temperature and field conditions, which are the proper responsibility of others.