

# MasterSuna 3196

Water reducing superplasticizer for the readymix industry specifically designed for use with challenging aggregates

# **MATERIAL DESCRIPTION**

**MasterSuna 3196** is an innovative superplasticizer utilizing polymers designed to improve the consistency and performance of concrete produced in readymix concrete plants.

**MasterSuna** technology has been specifically developed to facilitate the production of concrete containing challenging aggregates.

# Use of challenging aggregates in concrete.

The use of manufactured sand or crushed fine aggregate in concrete can pose difficulties not only to the concrete producer but also the user. Sand obtained from parent rock with active mineralogy and clays has the potential to bind water in their structure. Also, certain clays tend to absorb admixtures rendering them less effective in concrete.

Differing types and varying levels of clay contaminants make it hard to control the workability of concrete. Increasing quantities of active clays lead to higher water demand with adverse effects on the properties of concrete.

In instances where alternative aggregates cannot be sourced, **MasterSuna** can potentially reduce effects of manufactured and clay contaminated aggregates for easier use.

#### **RECOMMENDED USE**

- · Concrete containing manufactured sand
- · Mixes with high proportions of manufactured sand
- · Controlling fine aggregates with active clays
- · Readymix concrete
- Piling concrete
- Post-tensioned concrete
- Precast & prestressed concrete
- Self-Compacting & Smart Dynamic Concrete
- Shotcrete
- Remote locations

#### **FEATURES AND BENEFITS**

- Reduced mix costs
- Effective & compatible with manufactured sands
- · Adaptable to varying levels of clay contaminants

- · Reduced need for natural sands
- Improved mix efficiency
- · Improves concrete appearance & rheology
- Facilitates production & consistent quality of concrete
- Preserves natural resources

#### **PACKAGING**

MasterSuna 3196 is available in 1000 litre IBC's.

## **TYPICAL PROPERTIES\***

Appearance	Brownish Liquid
Specific gravity @25°C	1.040 - 1.080
pH value	5.0 – 8.0
Chloride Content	"chloride-free" to EN 934-2

The occurrence of a surface layer with **MasterSuna 3196** is normal and will have no effect on the performance of the product.

### **DOSAGE**

The normally recommended dosage rate of **MasterSuna 3196** is 0.5 to 1.5 litre per 100kg of total cementitious material

Other dosages may be recommended in special cases according to the specific site conditions. In this case, please consult our Technical Services Department for advice.

#### **MIXING**

**MasterSuna 3196** is a ready-to-use admixture to be added to the concrete as a separate component. Optimal result is obtained if **MasterSuna 3196** is poured into the concrete mix right after the addition of the first 80% of the mixing water, i.e., when all solids are wetted. Avoid adding the admixture to the dry aggregates.

## **COMPATIBILITY**

**MasterSuna 3196** is not compatible with MasterRheobuild superplasticizers.

MasterSuna 3196 is suitable for mixes containing:

- Microsilica (Silica Fume)
- Fly Ash (PFA)
- GGBS (ground granulated blast furnace slag)

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#### STORAGE / SHELF LIFE

**MasterSuna 3196** should be stored out of direct sunlight and protected from extremes of temperature. The shelf life is 12 months when stored as above.

## **HANDLING & TRANSPORTATION**

No special requirements must be observed during use. Protection gloves and glasses are however recommended. **MasterSuna 3196** is non-flammable, non-toxic or irritant and is not subject to special transport requirements.

#### **PRECAUTIONS**

**MasterSuna 3196** contains no hazardous substances requiring labelling. For further information refer to the Material Safety Data Sheet.

#### **NOTE**

Technical support, where provided, does not constitute supervisory responsibility. For additional information contact your local MB Construction Chemicals Solutions South Africa (Pty) Ltd representative. MB Construction Chemicals Solutions South Africa (Pty) Ltd shall not be liable for technical advice provided.

MB Construction Chemicals Solutions South Africa (Pty) Ltd reserves the right to have the true cause of any difficulty determined by accepted test methods. Undertaking such tests is not, and shall not be deemed to be, an admission of liability or an assumption of any risk, loss, damage or liability.

# **QUALITY AND RESPONSIBLE CARE**

All products originating from MB Construction Chemicals Solutions South Africa (Pty) Ltd are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, environmental and occupational health and safety standards.

\* Properties listed are based on laboratory controlled tests.

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