ÇİMENTO SANAYİ ve TİCARET A.Ş.

MERSİN

ISIDAC 40

ISIDAC 40 TECHNICAL DATA SHEET

General Characteristic

- ◆ *High early strength . Formwork can be removed after 5 hours (at 20^0 C)*
- ◆ Working times up to 4 hr (can be retarded or accelerated by the use of some chemical and/or mineral admixtures).
- ◆ High abrasion resistance.
- ◆ High corrosion resistance and high durability under severe environmental effects.
- ◆ High durability under severe environmental effects, i.e resistance against chemical, biological and acid attacks.
- ◆ Refractoriness up to 1280˚C.

Application Areas

- ◆ Applications where rapid hardening and high early strength is required. (Highways, airports, repair works, etc.)
- ◆ Applications where high abrasion resistance is required (industrial floors, highways, spillways of dams, etc.)
- ◆ Applications in cold weather conditions where conventional concreting is not possible (the temperature under 5˚C up to -10˚C)
- ◆ Applications where heat resistance is required (refractory applications up to 1280˚C)
- ◆ Applications where resistance to chemical, biological and acidic attack (pH>4) is required (pipes, sewers, industrial floors, tunnels, applications in soil, coastal application, etc.)
- ◆ Usage as one of the main constituent in building chemistry formulations (rapid hardening repair mortar, self leveling compounds, tile edhesives, grouts, sealers, anchoring and bedding mortars etc.)

TECHNICAL PROPERTIES

CHEMICAL COMPOSITION

Main constituents (%)			
Al_2O_3	CaO	SiO_2	Fe_2O_3
≥ 38,5	≤ 38	≤ 4,5	≤ 17,5
Specification limits(EN 14647)			
35≤ Al2O3 ≤ 58			
Minor constituents (%)			
TiO_2	MgO	SO_3	K_2O+Na_2O soluble
< 3.0	< 1.0	≤ 0.2	< 0.30

Mineral phases of ISIDAC 40

Main mineral phase : CA,

Other phases : Ferrites, $C_{12}A_7$, C_2AS, C_2S

PHYSICAL PROPERTIES

Physical constituents (%) / TEST METHOD USED		
- Initial set	: 180-350 '	EN - 196 - 3
- Max. after initial set	: 20'	EN - 196 - 3
- Fineness : > 2500 cm^2/gr		EN - 196 - 6
- Specific gravity : 3.30 gr/cm^3		EN - 196 - 6
- Bulk density : 1.1 - 1.2 gr/lt		
Specification limits (EN 14647)		
- Initial set ≥ 90'		

SAND MORTAR PROPERTIES (EN-196)

Compressive strength			(EN 14647)
6hr :	≥ 28 Mpa	24hr :	≥ 60 Mpa
w/c should not exceed 0.4			
Specification limits (EN 14647)			
6hr :	≥ 18 Mpa	24hr :	≥ 40 Mpa

- Flow ≥ 30 ASTM C109

WARNING

- ◆ *Water/cement ratio in concrete applications should not exceed 0.4*
- ◆ *In concrete appl cations cement content should not be lees than 400 kg/m3*
- ◆ *Due to its high heat of hydration,curing particulary with in the first 24 hours should be performed properly.*
- ◆ *Avoid unintentional contact or mix of ISIDAC 40 with other in organic binders such as cement, gypsum and lime etc. to prevent an uncontrolled set.*
- ◆ The cleanliness of all the tools and equipment used for preparing mortar should be thoroughly checked.
- ◆ *Avoid usage ot aggregates containing free alkalis.*
- ◆ *Shelf life of ISIDAC 40 is higher then 6 months when stored under suitable conditions*