

## DURABET®

DURABET® is a high performance concrete resistant to severe exposure conditions , impermeable and with low crack risk, low heat development properties among many years without maintenance.

### Constituents of Concrete

During DURABET® production, according to the national-international standards qualified materials are used. All the process from production to casting is 100% controlled.

*Cement:* CEM I 42,5 N type low alkali cement is produced by Bolu Cement Factory which is participation of OYAK Cement Group exclusively for DURABET® .

*Aggregate:* All aggregates are obtained from special resources chosen by petrographic analysis.

*Chemical Admixture:* Micro Silica and Flyash compatible new generation super plasticizers are used in DURABET® .

### Area of Use

- Long term durability needed structures,
- Underwater structures,
- Substructure Works,
- Sea water exposed structures.
- Freeze&thaw durability needed Tunnels, Tube tunnels, bridges, etc. structures
- Freeze&thaw durability needed marine structures

### Projects Of Used

- Marmaray Project
- Mimar Sinan Project
- Avrasya Tunnel



### Properties of Fresh and Hardened Concrete

Consistency (Slump) Class	Slump Retention ( hours)	Total Air Content (%)	Compressive Strength (Mpa)	Adiabatic Heat Development Q <sub>m,7 gün</sub> kj/kg	Activation Energy E >20 C J/mol	CI Permeability C <sub>m,28 aün</sub> ( m <sup>2</sup> /sn)	Thermal Expansion Coefficient °C
S4-S5	* 2	4 < x <8	f <sub>cm,28gün</sub> :55-65	260-280	32.500-34.500	< 3x10 <sup>-12</sup>	6x10 <sup>-6</sup>

\* in 20°C ambient temperature