

SRA – SHRINKAGE REDUCING ADMIXTURE

Shrinkage normally describes a reduction in the volume of concrete independent of loading as a result of changes in its moisture content. Two well-known types of shrinkage are drying as a result of the progressive hydration of the cement (autogenous shrinkage) and drying shrinkage as a result of the release of moisture to the surroundings. All types of shrinkage may lead to cracking which can pose a risk to the durability of the concrete.

BT-SRA400 is a ready to use liquid admixture designed to reduce drying shrinkage and the potential for subsequent cracking in concrete. BT-SRA400 reduces the surface tension of the meniscus formed at the air-water interface in the pores. This reduces the internal tensile stresses that causes shrinkage of the cement paste. A drying shrinkage reduction of up to 50% can be observed, but usually in the range of 35 - 50%. BT-SRA400 contains no added chlorides or chemicals known to promote the corrosion of steel.

PRODUCT CHARACTERISTICS FEATURES & BENEFITS

- Typically, shrinkage may be reduced up to 50% at one year and beyond, depending on the cement used
- Reduces cracking caused by drying shrinkage
- Increases the life of the structure
- Decreases maintenance costs and increases the durability

PRIMARY APPLICATIONS

- Floors, Foundations, Silos, Concrete pipes
- Interior/Exterior concrete
- Walls
- Watertight construction
- Skating rinks
- Water purification plants
- Swimming pools
- Underground construction
- Water tanks

DIRECTIONS FOR USE

Add BT-SRA400 after all admixtures have been introduced into the mix. It is also recommended to allow enough mixing time of all other admixtures before the addition of BT-SRA400 to ensure concrete homogeneity. To reduce shrinkage, a dosage of 1% to 2% by weight of cementitious should be used.

BT-SRA400 is especially recommended for concrete mixtures with a high cement content, for applications under unfavourable weather conditions including heat, wind and sunlight, and for elements with large cross sections. The admixtures are suitable both for ready-mixed concrete and for the production of pre-cast and pre-stressed elements