# Sika® Control-40

# Shrinkage Reducing Admixture

Description	Sika* Control-40 is a shrinkage reducing admixture used to produce high performance concrete with greatly reduced drying shrinkage. Sika* Control-40 meets the requirements of ASTM C-494 Type S.
Applications	Sika® Control-40 is designed for the following applications:
	Concrete floors where reduced shrinkage minimizes risk of shrinkage cracking for the same joint spacing, and allows greater joint spacing without increasing the risk o shrinkage cracking.
	■ Thin bonded topping slabs, to minimize the difference in shrinkage between the new topping and the existing substrate.
	■ Concrete elements which are restrained against shrinkage.
	■ For durable concrete in marine environments.
	■ For watertight concrete in reservoirs, sewage treatment plants, and dams.
Benefits	■ Greatly reduced drying shrinkage & resulting cracking.
	■ Reduces the potential for slab curling.
	■ Substantially improved impermeability, resulting in improved concrete durability.
	■ Can be used for air entrained or non air entrained concrete.
How to Use	
Dosage	Dosage rates will vary according to materials used, ambient conditions and the

Dosage

Dosage rates will vary according to materials used, ambient conditions and the requirements of Dosage a specific project.

Sika recommends dosage at 8-40 fl. oz. per 100 lbs. (0.52-2.61 L/100 kg) of cementitious for general concrete applications.

Dosage rates outside the recommended range may be used when unusual project conditions require special consideration. In this case, Please contact your local Sika representative or Sika Technical Service Department 1-800- 933-7452 for more information and assistance.

Laboratory tests show that, at a dosage of 30 fl.oz./cwt. of Sika\* Control-40, shrinkage over the long term can be reduced by as much as 40%. However, the amount of shrinkage reduction is dependent on the mix design and the components of the concrete.

When using Sika® Control-40, lab and field tests are always recommended to verify the performance and handling characteristics of the specified concrete mix.

Mixing

The required dosage of Sika® Control-40 should be added to the concrete at the batching plant, with the gauging water or poured into the concrete simultaneously with it. It may also be added in the transit mixer at the point of discharge, but an additional mixing time of 5 minutes is required and the concrete should be visually checked for uniform consistency.

**Combination with other admixtures:** Sika® Control-40 is highly effective as a single admixture or in combination with other Sika admixtures. Do not premix with other admixtures.



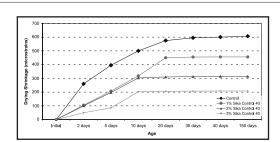
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Packaging	Sika° Control-40 is available in 55 gallon drums (208 liters), 275 gallon (1040 liter) totes and bulk supply.
Storage and Shelf Life	Sika° Control-40 should be stored above 40°F (5°C). If frozen, thaw and agitate thoroughly to return to normal state.
	Shelf life when stored in dry warehouse condition between $50^{\circ}F$ and $80^{\circ}F$ ( $10^{\circ}C$ - $27^{\circ}C$ ) is one year.
Typical Data	
Appearance	Pink Liquid

## **Typical Shrinkage Results**

**Specific Gravity** 



Approx. 1.00

**Note:** Above results should be used strictly as a guide only. Different results should be expected based on testing method and condition of test. Dose rates of Sika\* Control-40 are based on weight of cement.

### **Important Notes**

- Sika\* Control-40 will reduce drying shrinkage. It will not eliminate cracking. The reduction of cracking is dependant on good engineering design that allows for concrete shrinkage by incorporating well designed and properly located shrinkage control joints.
- It is essential to protect the concrete from water evaporation during the crucial early age period. We recommend the use of SikaFilm\* evaporation retardant and curing compounds for this purpose. Refer to the technical data sheets for information.
- When Sika® Control-40 is used for the production of air entrained concrete, a higher dosage of the air entraining admixture may be required.
- Sika\* Control-40 will cause retardation when used during cold weather concreting. This effect can be reduced by adding Sika\* Rapid-1 or other accelerating admixtures.

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