

R-209

Polycarboxylate-based Superplasticizer in Powder

Product Introduction

R-209 is polymerized by various macromolecule organic compounds. It belongs to polycarboxylate-based grafted copolymer superplasticizer, and is a new generation of environment friendly cement admixture of advanced world level. The polycarboxylate-based superplasticizer has reached the international advanced level on the aspects of technical performance index and cost performance. It can be widely used in water conservancy project, electrical power project, port project, railway project, bridge project, highway project and main structure cement casting of civil building.

Technical Specification

Item	Specification	Item	Specification
Appearance	white to yellow powder	Moisture content (%)	≤3
Bulk density (g/l)	600±50	Loss on ignition(%)	≥86
PH Value (20℃ aqueous solution)	9.0±1.0	Chloride content(%)	≤0.1

The application performance of R-209 in the concrete is shown in the following table, the test method is adopted with reference to the Chinese national standard, the standard concrete PO 42.5 is taken in the following tests, the mixing additive is 0.2% of the amount of cement. (Powder product)

Item		Unit	Specification
Water reducing Rate		%	≥25
Ratio of Compressive Strength	1d	%	≥170
	3d		≥160
	7d		≥150
	28d		≥140
Air content		%	≤6.0
Ratio of Bleeding Rate		%	≤60
Ratio of Shrinkage (28d)		%	≤110
Difference in setting time	Initial setting time	Min.	-90~+120
	Final setting time		
Number of cycles of resistance to freezing and thawing		Time	≥200
Slump retention (60 min)		mm	≤80

Principal performance

- High Water reducing Rate: Water-reducing rate of the mortar can reach above 20%, and the fluidity of the mortar can be greatly improved when adding the same amount of water.
- High Early-Strength: it is able to improve the early strength and the limit strength of the mortar, and it is the best option for applications that require an rapid curing ;
- High Durability: it is able to reduce the water-binder ratio, and enhance the durability performance, decrease the shrinkage and creep deformation and reduce shrinkage crack at the last stage of the mortar hardens;
- Environment Friendly Product: No pollution is caused to natural environment during the production; totally meet the international standard of ISO 14000 Environment Protection Management.

Scope of application

R-209 is a special polycarboxylate-based superplasticizer for dry mortar. It has a good adaptability with cement and other admixtures and has been widely used in non-shrinkage grouting material /mechanical grouting material, repair mortar, cement-based mortar, waterproof mortar, crack-sealer and thermal mortar, and other cement-based dry powder material. It has been proved to be very helpful in improving the fluidity, early and final strength and the decreasing the shrinkage crack at the last stage of the mortar hardens. Besides, the product is applicable to the gypsum-based dry powder material, fire-proof material and ceramics.

Recommended Mixing Amount

The recommended range of dosage in various powder materials shall be accounted of 0.2-0.3% of cementing material.

Package, Storage and Transportation

- The package is 25 kg bag.
- Large or special package are also available for customer demands;
- Store in a dry place with a normal temperature (below 40°C), no stacking or great pressure to avoid caking products;
- This product can be kept for 12 months in the original package, and it shall be put in use within 60 days in case of opening the original package.
- This product shall be transported according to the standard of common chemical products.