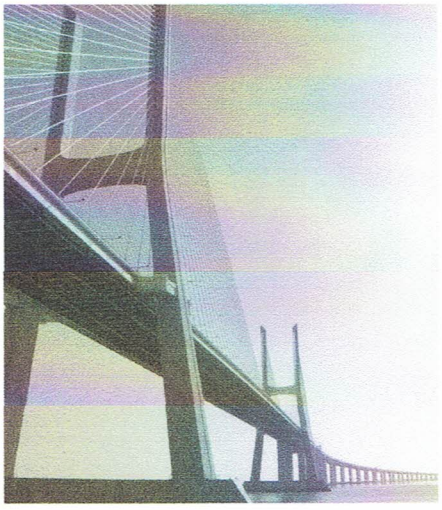
EXACTLY YOUR CONSTRUCTION ADDITIVE

RAW MATERIALS FOR SUPERPLASTICIZERS AND ADDITIVES FOR ADMIXTURES AND CONCRETE

Clariant is offering a broad range of chemical intermediates and additives for the construction chemicals industry. Our POLYGLYKOL grades are the ideal raw material for 3rd generation superplasticizers while our HOSTAPUR®*, GENAPOL®, EMULSOGEN® and PREVOL® product lines are the right choice if you are looking for air entraining agents, wetting agents or other additives to boost the performance of your construction admixture products. Our new range of Genam in® polyether amines are the right product choice for epoxy and polyurea applications.



RAW MATERIALS FOR POLYCARBOXYLATE SUPERPLASTICIZERS

High performance water reducing agents and slump retention additives for concrete and mortar are based on the polycarboxylate ether chemistry. Key elements of these polymers are functional polyethylene glycols which are co-polymerized with other carboxylic monomers.

POLYETHYLENE GLYCOL MONO-METHYL ETHERS (M-PEGS)

Polyglykol M-Types are linear, mono hydroxy-functional polyethylene glycol monomethyl ethers (M-PEGs) that are completely water soluble. Polyglykol M-Types are esterified with methacrylic acid to yield the corresponding polyglycol mono methacrylates which are used for the polymerization of polycarboxylate superplasticizers. The key quality factor for this application is a low content of dihydroxy-functional contaminants (diol content) to avoid side products.

TRADE NAME	MOLAR mass g/mol	HYDROXYL VALUE mg KOH/g	DIOL CONTENT Area % HPLC	WATER CONTENT % (w/w)	APPEARANCE at 25°C
Polyglykol M 350	330 - 370	approx. 160	Max. 1.0	Max. 0.5	Liquid
Polyglykol M 500	470 - 530	approx. 112	Max. 0.5	Max. 0.5	Liquid
Polyglykol M 750	720 - 780	approx. 75	Max. 1.0	Max. 0.25	Liquid
Polyglykol M 1000	970 - 1060	approx. 55	Max. 1.0	Max. 0.1	Waxy
Polyglykol M 2000	1800 - 2200	approx. 28	Max. 2.0	Max. 0.1	Solid
Polyglykol M 3000	2800 - 3200	approx. 19	Max. 1.5	Max. 0.1	Solid
Polyglykol M 5000	4500 - 5500	approx. 11	Max. 1.5	Max. 0.1	Solid

POLYMERIZABLE POLYGLYCOLS

With the Polyglykol MA series, Clariant has developed a new generation of PCE precursors. These new type of macromonomers are mono methacrylic acid esters of the corresponding polyglycols. Polyglykol MA can be polymerized directly and therefore offer a cost and time efficient alternative synthesis route to PCE superplasticizers. In addition Clariant also opens up a range of mono allylic ethers of the corresponding polyglycoles (Polyglykol A types) for the same use.

TRADE NAME	MOLAR MASS g/mol	HYDROXYL VALUE mg KOH/g	WATER CONTENT % (w/w)	APPEARANCE at 25°C
Polyglykol MA 750	720 - 800	approx. 74	Max. 0.2	Liquid
Polyglykol MA 1000/70%	1000 - 1200	approx. 51	27 - 33	Aqueous solution
Polyglykol MA 2000/55%	1900 - 2300	approx. 26	43 - 47	Aqueous solution
Polyglykol MA 5000 M50	4500 - 5600	approx. 11	43 - 47	Aqueous solution
Polyglykol A 500	appr. 500	approx. 115	Max. 0.2	Liquid
Polyglykol A 1100	appr. 1100	approx. 54	Max. 0.2	Waxy

Our complete product portfolio of polyglycols is presented in the brochure "Your universally applicable Polymer - Polyalkylen-/Polyethylenglykole".