



## CustoPoly<sup>®</sup>

*Conditioning, Emulsifying, Stabilizing, Suspending, Thickening and Gelling*

## CustoPoly<sup>®</sup> E series- Emulsion Polymers

CustoPoly<sup>®</sup> E series are versatile, liquid polymers for thickening and emulsifying o/w creams and lotions.

CustoPoly<sup>®</sup> E series polymers are:

1. Supplied as easy to use liquids
2. Require no neutralization so they can be added at any stage in the manufacturing process
3. Give light textures with easy rub into the skin. They are non-greasy and non sticky.

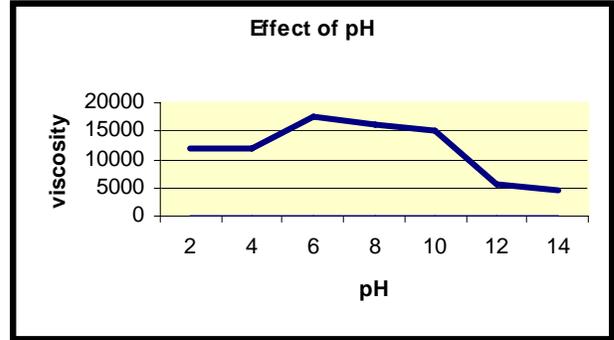
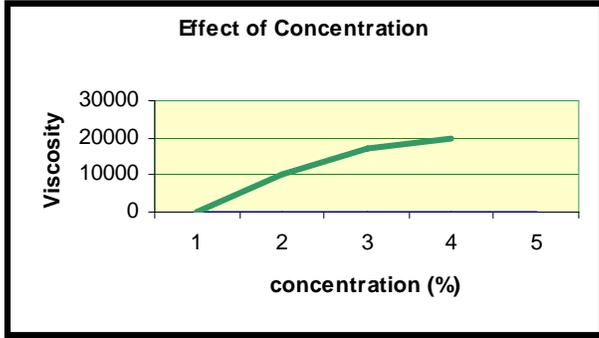
The rheology profile of these polymers helps to spread highly viscous ingredients. The products are pseudoplastic and non-thixotropic. CustoPoly<sup>®</sup> E series polymers are shear thinning and recover instantly to their initial viscosity. Solutions of CustoPoly<sup>®</sup> E series polymers do not show significant changes in viscosity and stability at elevated temperature.

CustoPoly<sup>®</sup> E Series polymers are useful in hair care and skin care applications. They allow formulation of highly stable suspensions and O/W emulsions in a pH range for 2 - 11. Typical use levels are formulation dependent but range between 0.3 - 6 % .



**CustoPoly<sup>®</sup> E-3- Anionic Inverse Emulsion Polymer**

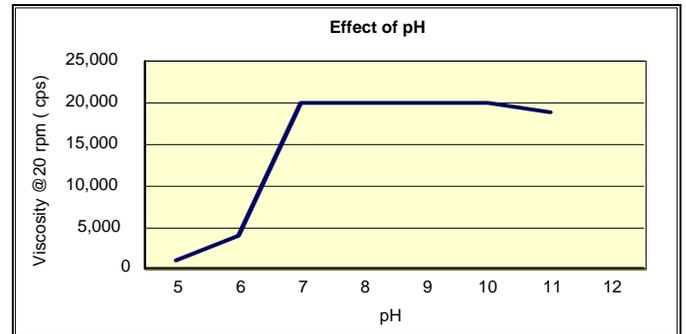
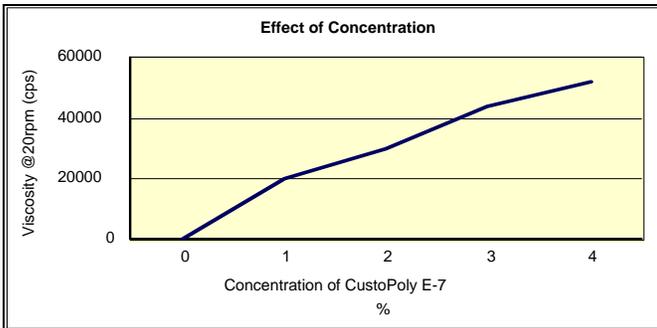
CustoPoly<sup>®</sup> E-3 is an anionic acrylic dispersion in medicinal grade mineral oil (Paraffinum Liquidum). It is typical used to thicken and stabilize low pH O/W emulsions.



INCI NAME: SODIUM ACRYLATE/ SODIUM ACRYLOYLDIMETHYL TAURATE COPOLYMER AND MINERAL OIL (PARAFFINUM LIQUIDIUM) AND TRIDECETH 6

**CustoPoly<sup>®</sup> E-7- Anionic Inverse Emulsion Polymer**

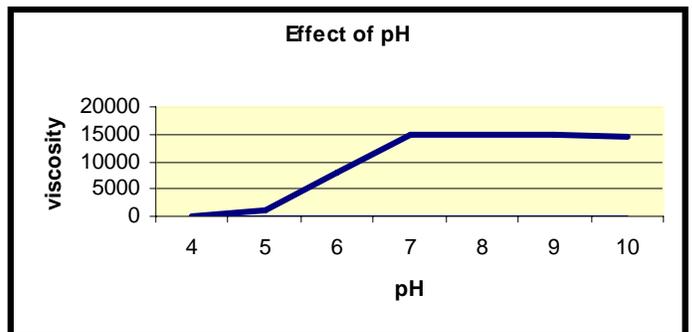
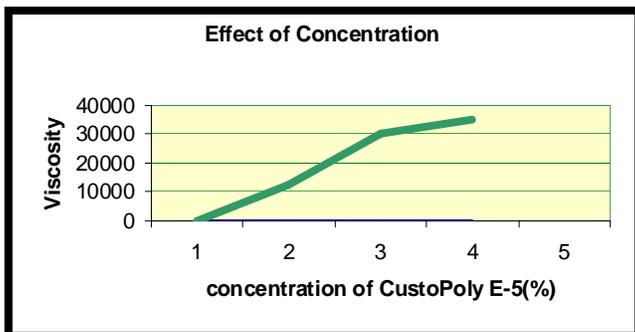
CustoPoly<sup>®</sup> E-7 is an anionic acrylic dispersion in medicinal grade mineral oil (Paraffinum Liquidum). It is typical used to thicken and stabilize O/W emulsions. Contains only Japan Approved ingredients



INCI NAME: SODIUM POLYACRYLATE AND MINERAL OIL (PARAFFINUM LIQUIDIUM) AND TRIDECETH- 6

**CustoPoly<sup>®</sup> E-5 – Anionic Inverse Emulsion Polymer**

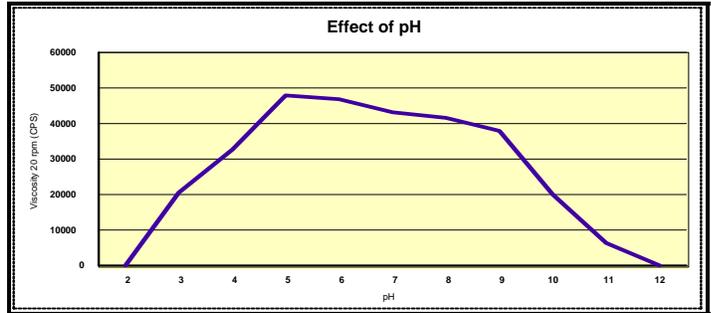
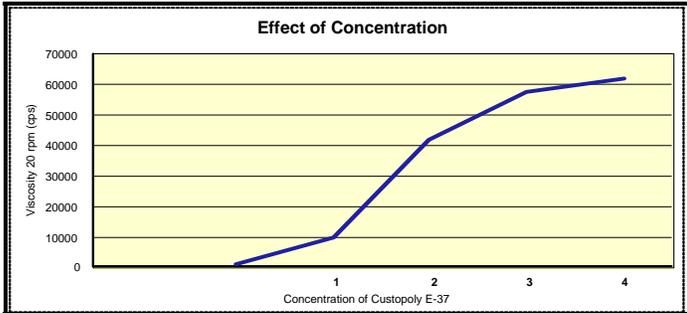
CustoPoly<sup>®</sup> E-5 is an anionic acrylic dispersion in a medicinal grade of white mineral oil. It is typically used to thicken aqueous solutions and to formulate an emulsion with a cold process. It is compatible with a wide range of materials including cationics.



INCI NAME: ACRYLAMIDE/SODIUM ACRYLATE COPOLYMER/ MINERAL OIL (PARAFFINUM LIQUIDIUM)/ TRIDECETH-6

**CustoPoly<sup>®</sup> E-37 – Cationic Inverse Emulsion Polymer**

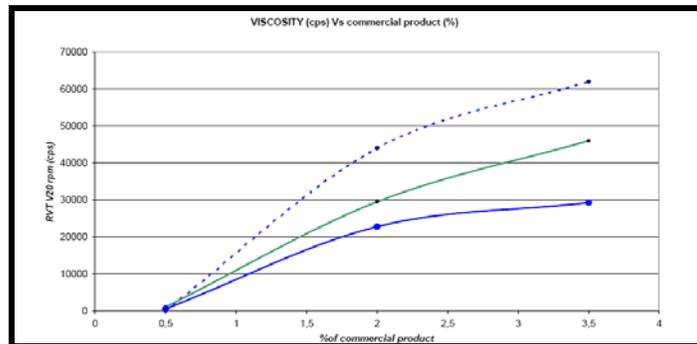
CustoPoly<sup>®</sup> E-37 is a cationic acrylic copolymer dispersed in medicinal grade white oil. It is typically used to thicken cationic aqueous solutions and to stabilize low pH O/W emulsions.



INCI NAME: POLYQUATERNIUM 37, AND MINERAL OIL (PARAFFIUM LIQUIDIUM) AND PPG-1TRIDECETH-6

**CustoPoly<sup>®</sup> E-2591 – Cationic Inverse Emulsion Polymer**

CustoPoly<sup>®</sup> E-2591 is a polymer developed specially for the cosmetic and pharmaceutical industry. It is a cationic polymer dispersion in an ester. It is typically used to thicken aqueous solutions and to stabilize o/w emulsions even at low pH.



----- CustoPoly<sup>®</sup> E -37      \_\_\_\_\_ CustoPoly<sup>®</sup> E- 2591      \_\_\_\_\_ Competitive polymer

INCI NAME: POLYQUATERNIUM-37 AND PROPYLENE GLYCOL DICAPRYLATE/DICAPRATE AND PPG-1 TRIDECETH-6



## CustoPoly<sup>®</sup> 100 series - Conditioning Polymers

CustoPoly<sup>®</sup> 106 and 107 are cationic polymers, which allows a formulator to incorporate conditioning into aqueous formulations without sacrificing clarity or foam of surfactants.

In hair CustoPoly<sup>®</sup> 106 and 107 form electrostatic combinations with negatively charged hair.

1. To reduce static flyaway
2. Improve wet comb ability
3. Increase shine and softness and body to hair

In skin care applications, CustoPoly<sup>®</sup> 106 and 107 improves:

1. The spread ability of the product
2. Give skin a soft velvety feel and a non-greasy after feel

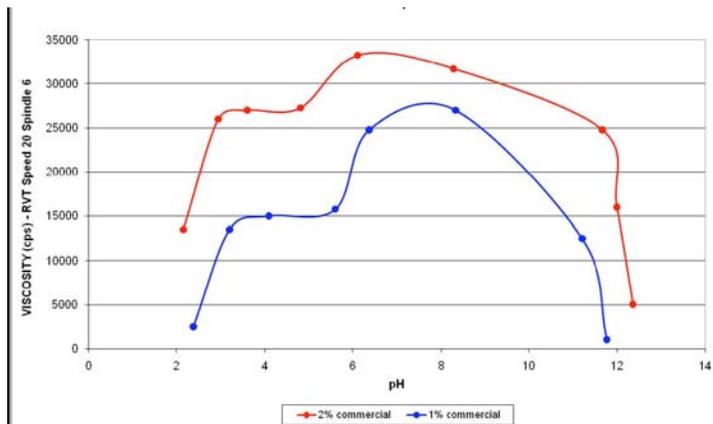
The high solubility in water and the compatibility with all types of surfactants make CustoPoly<sup>®</sup> 106 and 107 excellent ingredients for hair care, bath and skin cleansers. Typically, one can incorporate between 8-12 % active anionic material without encountering any haziness.

CustoPoly<sup>®</sup> 106 INCI NAME: POLYQUATERNIUM 6

CustoPoly<sup>®</sup> 107 INCI NAME: POLYQUATERNIUM 7

## CustoPoly<sup>®</sup> PSD –Anionic Low pH Polymer

CustoPoly<sup>®</sup> PSD is an anionic polymer used to make thick aqueous solutions and stabilizes emulsions, even at low pH. CustoPoly<sup>®</sup> PSD is a ready to use powder that swells immediately in water at room temperature and without any neutralization. Gels and emulsions can be produced at room temperature.



INCI NAME: SODIUM ACRYLATES / SODIUM ACRYLOYLDIMETHYL TAURATE COPOLYMER

## CustoPoly® J series - Rheology Modifiers

**CustoPoly® J** series are acrylic based polymers in powder form typically used for thickening and suspension of solid particles in aqueous solutions. These polymers swell to form clear gels at room temperature and retain their structure even at elevated temperatures. Formulators can expect to obtain higher clarity and higher viscosity over typical acrylate thickeners in the market with the **CustoPoly® J** series.

**CustoPoly® J-400** is a thickening agent for aqueous solutions with a high yield value. It is an effective emulsion stabilizer and forms stable suspension of solids in gels and higher viscosity than traditional carbomers.

INCI NAME: CARBOMER

**CustoPoly® J-400D** is an easy to use powder with a short dissolution time. This polymer allows gel formation without the aid of neutralization.

INCI NAME: SODIUM CARBOMER

**CustoPoly® J-300** is a thickening agent for aqueous solutions with a high yield value. It is an effective emulsion stabilizer and forms stable suspension of solids in gels. This polymer is especially electrolyte tolerant.

INCI NAME: CARBOMER

**CustoPoly® J-100** is a thickening agent for aqueous solutions with a high yield value. It is an effective emulsion stabilizer and forms stable suspension of solids in gels. It has a longer flow rheology than J400.

INCI NAME: CARBOMER

**CustoPoly® EZ** is a new polymer characterized by improved dispersion properties. These dispersing properties make **CUSTOPOLY® EZ** an easy-to-process product compared to a traditional carbomer and can also lead to time savings in production.

INCI NAME: CARBOMER

## **Other Polymers of Interest**

**CustoPoly® GL** is an acrylic based polymer in powder form developed specially for the industrial and detergent use. It is typically used to thicken aqueous solutions and to make crystal clear gels and to suspend solids.

**CustoPoly® HMP** is an electrolyte stable polymer. HMP is a hydrophobically modified anionic acrylic polymer. **CustoPoly® HMP** acts as a polymeric emulsifier and thickener and exhibits improved resistance to electrolytes, higher suspending ability and, overall, excellent emulsifying properties. **CustoPoly® HMP** is active at pH 4-11.

INCI NAME: ACRYLATES/VINYL ISODECANOATE CROSSPOLYMER

## CustoPoly<sup>®</sup> A series - Liquid Rheology Modifiers

**CustoPoly<sup>®</sup> AC 30** is an anionic acrylic copolymer supplied as a low viscosity o/w emulsion. Its water dispersions, when neutralized, are characterized by high viscosity, high yield value and clarity. It is suitable for formulating clear fluid gels as well as for stabilizing oil-in-water emulsions. Its immediate dispersion, its clarity and its good compatibility with surfactants make **CustoPoly<sup>®</sup> AC 30** the ideal polymer for the formulation of surfactant systems, especially when a high suspending ability is required. Thanks to its resistance to alkali, **CustoPoly<sup>®</sup> AC 30** can be used in hair styling products and in any formulation where a high pH is required. Normal percentage of use is between 1 and 10 % depending on type of formulation and final desired viscosity.

INCI NAME: ACRYLATES COPOLYMER

**CustoPoly<sup>®</sup> ACW** is an anionic acrylic copolymer supplied as a low viscosity o/w emulsion. Its water dispersions, when neutralized, are characterized by high viscosity, high yield value and clarity. It is suitable for formulating clear gels as well as for stabilizing oil-in-water emulsions. Its immediate dispersion, its clarity and its good compatibility with typical resins like PVP, PVP/VA make **CustoPoly<sup>®</sup> ACW** the ideal polymer for the formulation of hair gels systems, especially when a high suspending ability is required. **CustoPoly<sup>®</sup> ACW** can be used with **CustoPoly<sup>®</sup> 106 and 107** in hair styling products to add conditioning. Normal percentage of use is between 3 and 5 % depending on type of formulation and final desired viscosity.

INCI NAME: ACRYLATE/PALMETH25 ACRYLATE COPOLYMER

**CustoPoly<sup>®</sup> AI-30** is an alkali stable anionic acrylic copolymer. It is supplied as a low viscosity o/w emulsion. Its water dispersions, when neutralized, are characterized by high viscosity, high yield value and clarity. It is suitable for formulating clear gels as well as for stabilizing oil-in-water emulsions. Because of its high resistance to alkali **CustoPoly<sup>®</sup> AI-30** is the ideal polymer for the formulation of HIGH pH systems, especially when a high suspending ability is required. Normal percentage of use is between 0.5-7.5% depending on type of formulation and final desired viscosity.

INCI NAME: ACRYLATE/PALMETH25 ITACONATE COPOLYMER

**CustoPoly<sup>®</sup> DK 4000N** is a low molecular weight polyacrylate in a neutralized form commonly used as a dispersant in detergent and fabric care applications. **CustoPoly<sup>®</sup> DK 4000N** is a water-soluble polymer designed to enhance the cleaning performance of household laundry, automatic dishwashing and all purpose cleaners. **CustoPoly<sup>®</sup> DK 4000N** has excellent compatibility with surfactants and is stable under alkaline conditions at high temperatures and in the presence of chlorine. **CustoPoly<sup>®</sup> DK 4000N** is an excellent processing and granulating aid in the production of spray-dried detergents.

INCI NAME: POLYACRYLATE

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