

CLAYTONE-7840

Rheology additive based on a self-activating, organophilic phyllosilicate to provide thixotropic flow behavior, especially for low- to medium-polar base oils in lubricant applications.

Product data

Composition

Organophilic phyllosilicate

Typical properties

The values indicated in this data sheet describe typical properties and do not constitute specification limits.

Bulk density: 317–413 kg/m³

Water content: 0.4–3.0 %

Color: off-white

Delivery form: powder

Applications

Lubricants and mold release

Special features and benefits

CLAYTONE-7840 is a specially treated phyllosilicate for use as a thickener for greases. The additive is particularly characterized by the fact that no chemical activator is required to create the rheological effect. The product swells and thickens all common base oils simply by adding a small amount of 0.1 % water. Therefore, no additional chemical activator needs to be added during manufacture, which simplifies production and saves time.

Greases with CLAYTONE-7840 exhibit highly constant thickening before and after stress as well as a low level of oil separation. The additive is particularly suitable for use in greases with high usage temperatures, as the greases do not have a dropping point and the rheological properties are retained at these temperatures.

The high level of purification during the manufacturing process of CLAYTONE-7840 largely removes abrasive accompanying minerals. This leads to good friction values with low abrasion in lubricant applications.

Recommended use

CLAYTONE-7840 is used as a thickener in low- to medium-polar base oils.

Mineral oils (API I-III)	■
Polyalphaolefins	■
Naphthenic oils	■

■ especially recommended □ recommended

Recommended levels

For NLGI class 2:

6–8 % additive (as supplied) based on the total formulation in mineral oils (API I-II) and naphthenic oils.

10–14 % additive (as supplied) based on the total formulation in mineral oils (API III) and polyalphaolefins.

The addition of 0.1 % water to the total formulation guarantees a complete and constant thickening effect.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions

To achieve optimum effectiveness, high shear forces are required during incorporation of the additive.

The following steps are recommended for the production of greases with CLAYTONE-7840:

1. Incorporation of CLAYTONE-7840 into the base oil using a mixer or dissolver
2. Addition of 0.1 % water
3. Addition of the other additive packages
4. Dispersion by means of a colloid mill or homogenizer



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This issue replaces all previous versions.