

## **Polyurethane rheological modified thickener**

### **RT-3629**

#### **Features and advantages:**

RT-3629 is one of the non-ionic association thickener series products modified by polyurethane and hydrophobic groups. It is free of organic solvents, organotin and APE0 compounds, and is a non-toxic, low-odor, environmentally friendly rheological modification agent with high shear thickening and leveling.

RT-3629 has almost Newtonian flow type rheological characteristics, especially suitable for water-based systems requiring high rheological, flow and thickening effects. The product not only has excellent high forward viscosity thickening effect, and its thickening system has excellent fluidity and leveling property, widely used in a variety of latex paints, adhesives and other water-based systems, especially a variety of high and medium grade internal and external water-based architectural coatings, water-based industrial paints, water-based inks, water-based station mixtures and petrochemical water treatment systems.

In the design of water-based building and industrial latex paint, the viscosity at high shear rate is related to the feel characteristics of the brush coating, the film forming performance of the film, the consistency of the compact history and the film thickness, and directly affects the life span, water resistance, stain resistance and wash resistance of the film. The excellent thickening efficiency and leveling effect of RT-3629 products at high shear rate are reliable guarantees for the performance of the above-mentioned water-based latex paints. In general, there is a simple linear proportional relationship between ICI barrier and the amount of RT-3629 used at high shear rate.

1. No organic solvent, no organic tin and inorganic heavy will be harmful ingredients, no APE0 compound, does not increase the content of organic volatile matter of water-based latex paint, non-toxic, low odor, is environmentally friendly products.

2. Good brush feel, excellent roller coating resistance, water resistance, alkali

resistance, scrubbing resistance, stain resistance and water resistance.

3. Excellent flow, leveling performance and hiding effect, uniform film thickness and film fullness, does not affect the gloss characteristics of the film.

4. Low viscosity liquid products, can be easily added at any stage of paint production, do not need to dilute before use, do not need alkali neutralization, flow level and thickening performance can be achieved in an instant.

**Product specifications:**

Appearance	Pale milky or translucent liquid
Effective portion	20%
Solvent	water
Density	1.04 g/cm <sup>3</sup> (25°C)
Viscosity	2500-4500 mPa·s(25°C)
Chemical type	Non-ionic association type HEUR

**Usage:**

RT-3629 can be used in different coating and adhesive formulations and has excellent compatibility with many other thickeners. In the usual formulation, RT-3629 can be used in combination with RT-3628, RT-3625, etc., to achieve the best balance between high, medium and low shear viscosity. RT-3629 can be used alone as a leveling and thickening agent in semi-luminous and high-gloss coatings with small particle size emulsions or in high-emulsion adhesive formulations.

The amount of use of this product is determined according to the customer's formula, and the recommended addition amount is 0.8%-3.0%. Customers can combine with other thickeners according to different requirements on production, storage, construction and film formation to meet the rheological performance requirements of formula design. In general, the film forming performance is directly related to the high shear viscosity of the coating, and the size of the high shear viscosity is in a simple linear proportional relationship with the amount of RT-3629 used. In paint production, RT-3629 is generally added when mixing paint, and

customers can also determine according to actual production conditions. However, if RT-3629 and RT-3628 and RT-3627 are used together in the formulation, RT-3629 should be added first to ensure smooth and rapid thickening

**Packing:**

25, 200 kg plastic drum and ton drum packaging

**Storage:**

The product should be stored in a cool, dry and ventilated warehouse under closed conditions, and certain anti-freezing measures should be taken during winter storage and transportation (if frozen, it can continue to be used after proper mixing after defreezing). The recommended storage temperature is 1-49°C.

Validity :24 months (under specified storage and transportation conditions). This product does not belong to the chemical dangerous goods, according to the transport regulations of non-hazardous chemicals.