

VISCOLITE®-RC10

Providing Viscosity and Rheology Stability for PVC Plastisol

Physical Properties



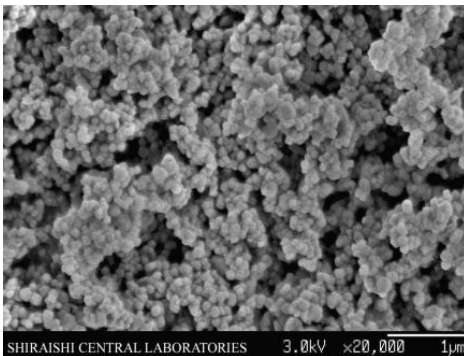
SHIRAIISHI KOGYO KAISHA, LTD.

Product	Particles			Typical Values			
	Shape	Diameter (nm)	Surface Treatment	Brightness (%)	BET SSA (m ² /g)	pH	Moisture (%)
Viscolite-RC10	Cubic	80	Fatty acid	97	17.3	9.0	0.3

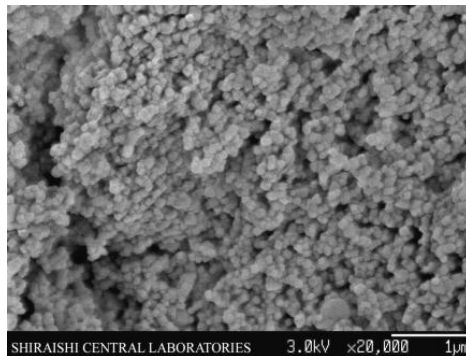
Precipitated Calcium Carbonate

Precipitated calcium carbonates (PCC) are used in a wide variety of applications. The dimensional stability, uniform dispersion and reliable consistency are the properties that make PCC ideal for adhesives, sealants and coatings. Shiraishi's product consistency gives optimum rheology in the most critical transportation, infrastructure and construction applications.

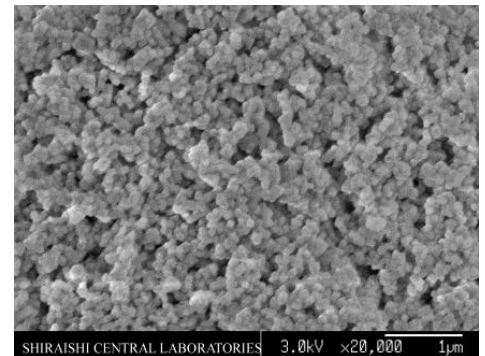
Scanning Electron Microscope Photos (× 20,000)



Viscolite-RC10



HAKUENKA CCR



Viscolite-OS

Properties of PVC Plastisol

		Viscolite-RC10	HAKUENKA CCR	Viscolite-OS
PVC Plastisol Properties (20 °C)				
Just After Mixing				
2 rpm	Pa·s	674	614	900
20 rpm	Pa·s	111	106	132
TI (2 rpm/20 rpm)	-	6.1	5.8	6.8
1 Day After Mixing				
2 rpm	Pa·s	560	524	672
20 rpm	Pa·s	94	86	100
TI (2 rpm/20 rpm)	-	6.0	6.1	6.7
7 Days After Mixing				
2 rpm	Pa·s	556	520	610
20 rpm	Pa·s	98	83	93
TI (2 rpm/20 rpm)	-	5.7	6.3	6.6
Extrusion Rate				
1 Day After Mixing	g/min	27	27	29
7 Days After Mixing	g/min	19	21	23
Sag and Slip				
Sag	mm	10	0	0
Slip	mm	17	19	17

Formulation

- Testing PVC plastisol made to copolymer, plasticizer, filler, amine, dehydrating agent and dilutant.

Operation

- Mixed with a planetary mixer.

Mixing conditions

- Temperature: 20 °C

Testing conditions

Extrusion rate

- Capillary size: diameter = 1 mm; length = 14 mm
- Pressure: 3 kgf/cm² (294.2 kPa)

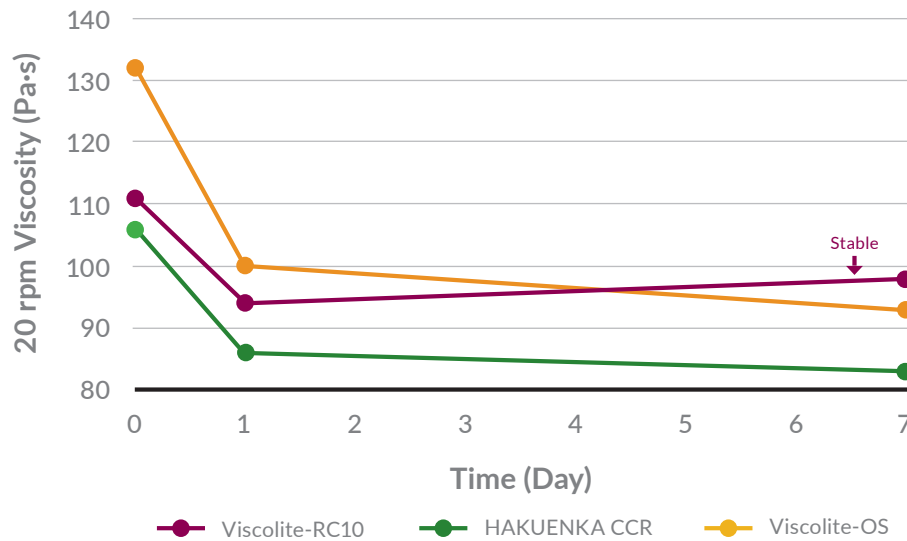
Sag and slip

- Steel plate: JISG3141
- Application: 60×50×5 mm
- Temperature: 140 °C
- Holding time: 5 min

Characteristics

- Significantly reduces the initial viscosity drop of the PVC plastisol. Maintains stable viscosity throughout the long-term aging process.
- The primary application is PVC plastisol.

Viscosity Stability of PVC Plastisol



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