ACULYN™ Rheology Modifiers

ACULYN™ Rheology Modifiers are versatile ingredients that are found across home and personal care applications. In personal care, ACULYN™ Rheology Modifiers are used in facial cleansers, body washers, shampoos, lotions, creams, gels and more. They can help enhance texture, provide suspension, adjust flow properties and stabilize formulations. In home care, they help stablise formulations and control flow properties, as well as suspend particles, provide vertical wall cling, reduce misting and control uniform dosing of a formulation.

-Features

✔ Can be used to formulate crystal clear gel systems

✔ Extremely low odor and its compatibility with various types of ingredients

✔ Stable in highly alkaline systems

✔No premixing or dispersing required

✔Dual functioning rheology modifier and film former

✔Level of GMP compliance – Cosmetic GMP

✔Excellent compatibility with polar solvents and peroxides

✔Exceptional skin feel and spreadability with low tack and excellent play time

✔Excellent viscosity stability

✔Effective as a polymeric emulsifier imparting a soft, non-greasy feel to formulations

✔Excellent suspension of particulates including beads, pigments and pearlizing agents

✔Suspends air bubbles in gel systems

✔Excellent suspension of silicones and silicone emulsions

✔Compatible with polyquaternium conditioning agents

✔Thickens acid systems

✔Thickens hydrogen peroxide systems

✔Highly salt and electrolyte tolerant (up to 10%)

-Applications

-Variety of personal care formulations

-Skin and sun care- creams, lotions, sprays, antipersirants, hand sanitizers

-Hair care- shampoos, conditioners, styling products, colorants and perm systems cleansing- body washes, facial cleansers, exfoliating cleansers, liquid hand soaps, mild cleansing formulations, sulfate-free cleansing formulations

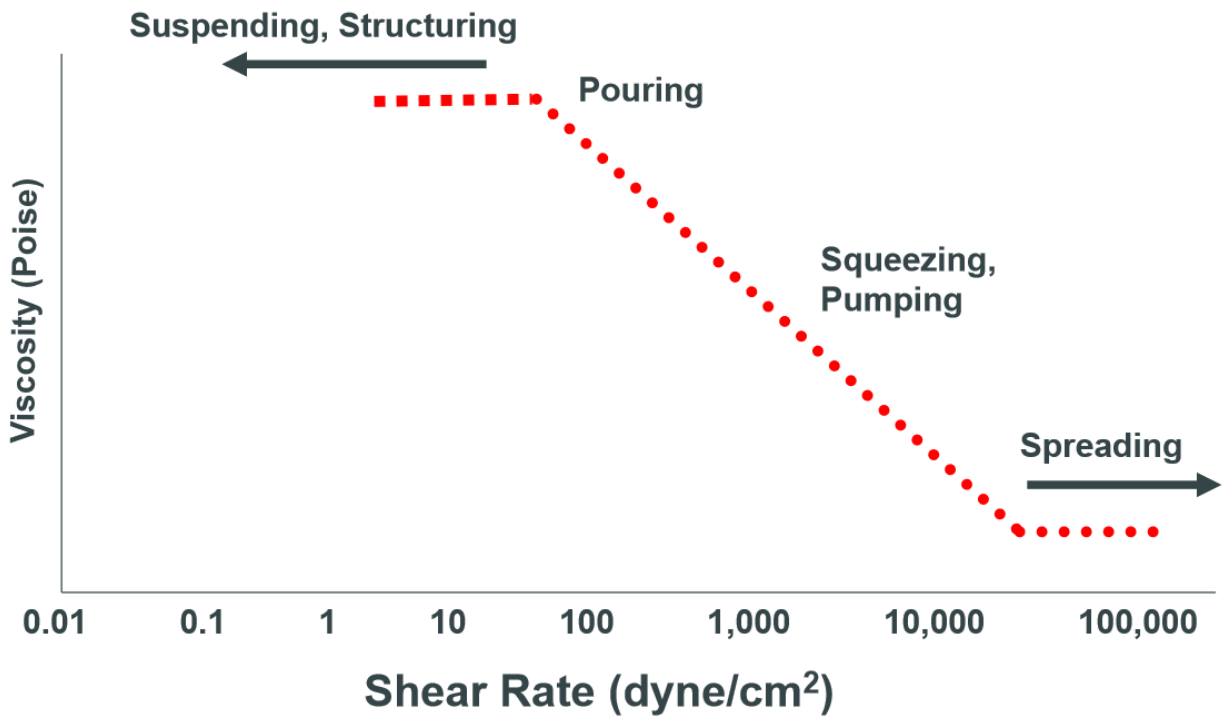
-TDS, formulating guides attached

- Solubility Data, Performance: sensory evaluation and Physical properties available as attached

-Product Line-up

	INCI Name	Solid	Preservative
ACULYN™ 33	Acrylates Copolymer	28%	10ppm CMIT/MIT
ACULYN™ 33A			NO
ACULYN™ 38	Acrylates/Vinyl Neodecanoate Crosspolymer	29%	NO
ACULYN™ 22	Acrylates/Steareth-20 Methacrylate Copolymer	30%	NO
ACULYN™ 28	Acrylates/Beheneth-25 Methacrylate Copolymer	20%	NO
ACULYN™ 88	Acrylates/Steareth-20 Methacrylate Crosspolymer	29%	0.2% Sodium Benzoate
ACULYN™ Excel	Acrylates Copolymer	31%	0.55% Benzoic Acid
ACULYN™ 44	PEG-150/Decyl Alcohol/SMDI Copolymer	35%	NO
ACULYN™ 46N	PEG-150/Stearyl Alcohol/SMDI Copolymer	19%	<0.5% Caprylyl glycol <80ppm MIT
ACULYN™ 60	PEG-150 Distearate	100%	NO

-Model Rheology Curve



-ACULYN™ Rheology Modifiers Selection Guide

	Aculyn™ 22	Aculyn™ 28	Aculyn™ 33A, 33	Aculyn™ 38	Aculyn™ 88	Aculyn™ Excel	Aculyn™ 44	Aculyn™ 46N	Aculyn™ 60
Features/Benefits	Efficient for difficult to thicken surfactant systems.	Our most efficient thickener. Offers wide pH range and excellent clarity.	Superior suspending performance. Thickenes polar solvent system.	Excellent suspending agent for thin pour formulation. Suitable for soap-based system.	Efficient suspension in high viscosity formulation.	Efficient suspension at acidic condition (pH>4) with high clarity.	Compatible with cationic ingredients. Excellent thickener for inorganic sunscreen formulation.	Compatible with cationic ingredients. For rinse-off application only.	Offers "rich" feel to high concentrated surfactant system.
Chemistry	HASE	HASE	ASE	ASE	HASE	HASE	HEUR	HEUR	HNP
Associative	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Ionicity	Anionic	Anionic	Anionic	Anionic	Anionic	Anionic	Nonionic	Nonionic	Nonionic
Solids, %	30	20	28	29	29	31	35	19	100
Solvent	Water	Water	Water	Water	Water	Water	PG/Water	Water	NA
pH	2.2 – 3.2	3.5 – 4.2	2.1 – 3.5	2.1 – 3.2	3.3 – 4.3	3.0 – 4.0	8-9	6-8	4.5-6.5
Eq*	218	253	218	239	255	254	NA	NA	NA
P.I.**	7.0	7.0	5.0	5.0	4.0	4.0	1.0	6.0	1.0
Rheology	Non stringy	Non stringy	Buttery	Smooth	Non stringy	Non stringy	Stringy, Tacky	Stringy, Tacky	–

* Eq weight: grams of dry polymer neutralized by 1 equivalent (40g) of NaOH.
** Pseudoplastic Index: Viscosity at 6rpm / Viscosity at 60rpm