Personal Care

Rheology modifiers guideline for skin care and skin cleansing applications

Skin care	Viscosity build		Emulsifying		Stabilizing		Sensory benefits	
Creams	ACULYN™ Siltouch[1] ACULYN™ 2051[1] ACULYN™ 22[1] ACULYN™ U[1] CELLOSIZE™ Texture 40-0100 Hydroxypropyl Methylcellulose[2]	3-6% 3-6% 1-3% 0.2-1% 0.1-0.3%	ACULYN™ Siltouch[1] ACULYN™ 2051[1] ACULYN™ 22[1] ACULYN™ U[1]	3-6% 3-6% 0.8-2% 0.2-1%	ACULYN™ Siltouch[1] ACULYN™ 2051[1] ACULYN™ Excel[1] ACULYN™ 38[1] CELLOSIZE™ PCG-10[2]	3-6% 3-6% 0.5-1% 0.5-1% 0.5-1.5%	ACULYN™ Siltouch[1] ACULYN™ 2051[1]	3-6% 3-6%
Gel creams	ACULYN™ Siltouch[1] ACULYN™ 2051[1] ACULYN™ 28[1] ACULYN™ U[1]	3-6% 3-6% 1-3% 0.2-1%	ACULYN™ Siltouch[1] ACULYN™ 2051[1] ACULYN™ 28[1]	3-6% 3-6% 1-5%	ACULYN™ Siltouch[1] ACULYN™ 2051[1] ACULYN™ Excel[1] ACULYN™ 38[1]	2-3% 2-3% 0.5-1% 0.5-1%	ACULYN™ Siltouch[1] ACULYN™ 2051[1]	3-6% 3-6%
Alpha hydroxy acid creams	ACULYN™ Siltouch[1] ACULYN™ 44[1] CELLOSIZE™ PCG-10[2]	4-7% 1-3% 0.5-1%	ACULYN™ Siltouch	4-7%	ACULYN™ Siltouch[1] CELLOSIZE™ PCG-10[2]	4-7% 0.2-1%	ACULYN™ Siltouch[1]	4-7%
Foundations/BB/CC creams	ACULYN™ Siltouch[1] ACULYN™ 2051[1] ACULYN™ 38[1] CELLOSIZE™ Texture 40-0202 Hydroxypropyl Methylcellulose[2]	3-6% 3-6% 1-3% 0.1-0.3%	ACULYN™ Siltouch [1] ACULYN™ 2051[1] ACULYN™ 22[1] ACULYN™ 28[1]	3-6% 3-6% 1.5-3% 0.8-2%	ACULYN™ Siltouch[1] ACULYN™ 2051[1] CELLOSIZE™ QP-4400H[2] ACULYN™ Excel[1] ACULYN™ 38[1]	3-6% 3-6% 0.5-1% 0.5-2% 0.5-3%	ACULYN™ Siltouch[1] ACULYN™ 2051[1]	3-6% 3-6%
Serums	ACULYN™ 28[1] ACULYN™ 88[1] CELLOSIZE™ PCG-10[2] ACULYN™ U[1]	1-2% 2-3% 0.2-1% 0.1-1%	ACULYN™ 28[1] ACULYN™ U[1]	1-5% 0.1-1%	ACULYN™ Excel[1] ACULYN™ 88[1] ACULYN™ 38[1]	0.5-1% 2-3% 0.5-1%		
Lotions	ACULYN™ Siltouch[1] ACULYN™ 2051[1] CELLOSIZE™ PCG-10[2] ACULYN™ U[1]	2-3% 2-3% 0.2-1.0% 0.2-1%	ACULYN™ Siltouch[1] ACULYN™ 2051[1] ACULYN™ 22[1] ACULYN™ U[1]	2-3% 2-3% 1.5-2% 0.2-1%	ACULYN™ Siltouch[1] ACULYN™ 2051[1] ACULYN™ Excel[1] ACULYN™ 88[1] ACULYN™ 38[1] ACULYN™ 33A	2-3% 2-3% 0.5-1% 2-3% 0.5-1% 0.5-1%	ACULYN™ Siltouch[1] ACULYN™ 2051[1]	2-3% 2-3%
Emulsion sprays	ACULYN™ 38[1]	1-2%	ACULYN™ 38[1]	2-3%	ACULYN™ 33A	2-3%		
AP/DEO roll on	CELLOSIZE™ PCG-10[2] ACULYN™ 44[1]	0.2-1.0% 1-5%						

[1]Rheology Modifier [2]Thickener

Skin cleansing	Viscosity build		Suspension		Foam boosting	
Hand and body washes (Synthetic surfactants based)	ACULYN™ 22[1] ACULYN™ 28[1] ACULYN™ U[1] CELLOSIZE™ Texture 40-0202 Hydroxypropyl Methylcellulose[2] CELLOSIZE™ PCG-10[2]	2-4% 3-5% 1-2.5% 0.2-1.5% 0.2-0.5	ACULYN™ Excel ACULYN™ 88[1] ACULYN™ 33A	4-8% 4-8% 4-8%	CELLOSIZE™ Texture 40-0202 Hydroxypropyl Methylcellulose[2]	0.2-0.8%
Hand and body washes (Mixed soap/surfactants based)	ACULYN™ Excel[1] ACULYN™ 88[1] ACULYN™ U[1]	4-8% 4-8% 1-2.5%	ACULYN™ Excel ACULYN™ 88[1] ACULYN™ 33A	4-8% 4-8% 4-8%	CELLOSIZE™ Texture 40-0202 Hydroxypropyl Methylcellulose[2]	0.2-0.8%
Facial washes	ACULYN™ 28[1] ACULYN™ U[1] ACULYN™ 88[1] CELLOSIZE™ Texture 40-0202 Hydroxypropyl Methylcellulose[2]	3-4% 1-2.5% 3-5% 0.2-1.5%	ACULYN™ Excel ACULYN™ 88[1]	4-8% 4-8%	CELLOSIZE™ Texture 40-0202 Hydroxypropyl Methylcellulose[2]	0.2-0.8%
Shaving preparations	CELLOSIZE™ PCG-10[2] CELLOSIZE™ Texture 40-0100 Hydroxypropyl Methylcellulose[2]	0.8-1.5% 0.1-03%			CELLOSIZE™ Texture 40-0202 Hydroxypropyl Methylcellulose[2] CELLOSIZE™ Texture E50 Hydroxypropyl Methylcellulose[2]	0.1-0.4% 2-3%
Hydroalcoholic hand sanitizers	ACULYN™ 38[1] ACULYN™ 88[1] ACULYN™ 33A	5-10% 5-10% 3-10%	ACULYN™ 33A	3-10%		

[1]Rheology Modifier [2] Thickener

ACULYN™ Rheology Modifiers Acrylics and Acrylic Hybrids	ACULYN™ Excel Rheology Modifier	ACULYN™ 22 Rheology Modifier	ACULYN™ 28 Rheology Modifier	ACULYN™ U Rheology Modifier	ACULYN™ 38 Rheology Modifier	ACULYN™ 44 Rheology Modifier	ACULYN™ 88 Rheology Modifier	ACULYN™ 2051 Rheology Modifier	ACULYN™ Siltouch Rheology Modifier	ACULYN™ 33A Rheology Modifier
INCI names	Acrylates Copolymer	Acrylates/ Steareth-20 Methacrylate Copolymer	Acrylates/ Beheneth-25 Methacrylate Copolymer	Acrylates/ Beheneth-25 Methacrylate Copolymer	Acrylates/Vinyl Neodecanoate Crosspolymer	PEG-150/Decyl Alcohol/SMDI Copolymer	Acrylates/ Steareth-20 Methacrylate Crosspolymer	Sodium Polyacrylate (and) Dimethicone (and) Cyclopentasiloxane (and) Trideceth-6 (and) PEG/PPG 18/18 Dimethicone	Sodium Acrylate/ Sodium Acryloyldimethyl Taurate Copolymer (and) Dimethicone (and) Trideceth-6 (and) PEG/PPG -18/18 Dimethicone	Acrylates Copolymer
Key features	Excellent suspending agent for clear systems usable across a broad pH including acidic pH	Efficient for difficult to thicken surfactant systems	General purpose thickener very efficient at building viscosity and excellent polymeric emulsifier	General purpose thickener very efficient at building viscosity and excellent polymeric emulsifier. Ideal for sulfate-free formulations	Excellent suspending agent for thin pour formulation. Exhibiting a non-sticky feel providing formulations with excellent viscosity stability	Associative thickener specifically suited for cationic ingredients containing formulations	Very efficient associative rheology modifier at building low shear viscosity and impart a mild, non-greasy, non-sticky rich feel to formulations	Easy to use thickener with excellent emulsifying properties enabling silicone like feel	Easy to use thickener with excellent emulsifying properties enabling a silicone touch usable over a wide pH range	Non associative thickener exhibiting good compatibility with polar solvents and good suspending properties for non-clear systems
Sensory profile	NA	NA	Watery, refreshing feel	Watery, refreshing feel	NA	Luxurious creamy feel	Smooth creamy feel	Smooth, light feel, non sticky	Smooth, light feel, non sticky	Soft, non-greasy, non-sticky, no watery feel
Rheology profile	Nice pouring flow	Rich feel, non sticky, slightly stringy	Quick break, excellent spreadability	Quick break, excellent spreadability	Thin pouring texture	Good pick-up	Thick pouring, rich texture	Supple, good pick-up	Supple, good pick-up	Thin pouring texture
Thickening capability	High	Very high	Very high	Very high	Moderate	Low	High	High	High	High
Associative behaviour	Intermediate	High	Very high	Very high	None	High	High	None	None	Non-Associative
Ionicity	Anionic	Anionic	Anionic	Anionic	Anionic	Nonionic	Anionic	Anionic	Anionic	Anionic
pH of use	pH 3-10	pH 6-10	pH 5-10	pH 5-10	pH 6.5-10	pH 3-10	pH 6-10	pH 5-10	pH 4-10	pH 6-10
pH as supplied	3.5	2.7	3	3.5-4.5	3	8.5	3.8	NA	NA	3
% Solids	31%	30%	20%	30%	29%	35%	29%	25%	27%	28%
Listed in the catalogue of Cosmetic Ingredients used in China	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CELLOSIZE™ Thickeners Water soluble nonionic thickeners for texture adjustments and stabilization		
INCI: Hydroxyethylcellulose, Listed in the catalogue of Cosmetic Ingredients used in China		
Grades	**Viscosity ranges of CELLOSIZE™ HEC Aqueous Solutions (mPa.s, 25°C)**	**Pseudoplasticy**
CELLOSIZE™ QP-4400H Thickener	4800-6000 (at 2%, 60rpm)	Medium
CELLOSIZE™ QP-15000H Thickener	1100-1500 (at 1%, 30 rpm)	Medium
CELLOSIZE™ QP-30000H Thickener	1500-2400 (at 1% 30 rpm)	High
CELLOSIZE™ QP-52000H Thickener	2400-3000 (at 1% 30 rpm)	High
CELLOSIZE™ PCG-10 Thickener	4400-6000 (at 1%,30 rpm)	High
CELLOSIZE™ Texture Thickeners **Water soluble nonionic thickeners especially designed for viscosity building in mild cleansing sytems and for foam boosting**		
INCI: Hydroxypropyl Methycellulose, Listed in the catalogue of Cosmetic Ingredients used in China		
Grades	**Viscosity ranges of CELLOSIZE™ Texture Thickeners (mPa.s - 20°C - Ubbelhode tube viscometer)**	**Cold dispersible**
CELLOSIZE™ Texture 40-0100 Hydroxypropyl Methylcellulose	10000-16500 (at 2%)	Yes
CELLOSIZE™ Texture 40-0101 Hydroxypropyl Methylcellulose	60000-90000 (at 2%)	Yes
CELLOSIZE™ Texture 40-0202 Hydroxypropyl Methylcellulose	3500-5500 (at 2%)	Yes
CELLOSIZE™ Texture E4M PRM Hydroxypropyl Methylcellulose	2600-5000 (at 2%)	No
CELLOSIZE™ Texture E50 Hydroxypropyl Methylcellulose	40-60 (at 2%)	No
CELLOSIZE™ Texture K100M Hydroxypropyl Methylcellulose	75000-140000 (at 2%)	No

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