SUMIKAFLEX 470HQ

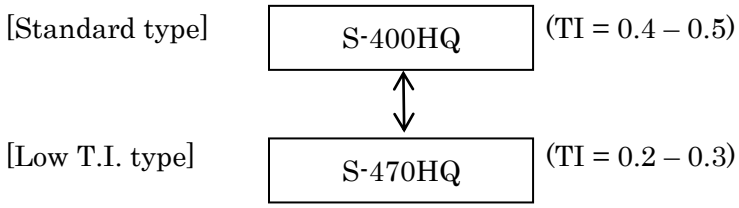
Type:	Ethylene-Vinyl acetate Copolymer Emulsion
Properties:	SUMIKAFLEX 470HQ (S-470HQ) is a low viscosity-change against shear i.e., a lower thixotropic index grade than the other SUMIKAFLEX 400 series (S-400HQ, 401HQ, 410HQ, 450HQ, and 460HQ). Due to the low thixotropic index, it offers good handling for high–speed roller, furthermore, it be controlled to impregnate adhesives when applied to more porous substrates.
Main application:	Adhesives

Physical properties :

Appearance		Milky white
Solid content	(%)	55 ± 1
Viscosity	(mPa·s)	2000 – 4000
pH		4 – 7
Ave. particle size	(μm)	0.8
Density	(g/cm^3)	1.07
MFT	(°C)	0
Particle charge		Nonionic
Mechanical stability		Good
Tg	(°C)	0
Tensile strength	(MPa)	13.0
Tensile elongation	(%)	530

< Technical Information of SUMIKAFLEX 470HQ >

1. Grade positioning



2. Emulsion properties

		S-470HQ	S-400HQ
Appearance		Milky white	Milky white
Solid content	(%)	55 ± 1	55 ± 1
Viscosity	(mPa·s)	2000 – 4000	1100 – 1600
TI		0.2 – 0.3	0.4 – 0.5
pH		4 – 7	4 – 7
Ave. particle size	(μm)	0.8	0.7
Density	(g/cm^3)	1.07	1.07
MFT	(°C)	0	0
Particle charge		Nonionic	Nonionic
Mechanical stability		Good	Good
Tg	(°C)	0	0

TI: Thixotropic index (Log (viscosity (BL-6 rpm)/viscosity (BL-60 rpm))

3. Film properties

(1) Tensile strength

		S-470HQ	S-400HQ
Original	Elongation (%)	530	550
	Strength (MPa)	13.0	12.7
Wet	Elongation (%)	610	600
	Strength (MPa)	3.6	3.3

Test method

Thickness of film	: 0.15 mm
Shape of film	: Dumbbell No.3
Film forming condition and aging	: 23ºC × 65%RH × 7 days
Wet film strength	: film in water at room temperature for 24 hours
Measurement speed	: 500 mm/min

(2) Water drop examination

	S-470HQ	S-400HQ
Whiting time (min)	5	2

Test method

Foam film (the thickness: 0.15 mm) on the slide glass in the room. The slide glass is on the 8 point Chinese character of the newspaper. Measure the time when the film is whitened after one droplet of water when we can't read it.

(3) Water or alkali liquid of resistance of film

		S-470HQ	S-400HQ
Water resistance	Elusion (%)	4	5
	Absorption (%)	18	16
Alkali resistance	Elusion (%)	8	9
	Absorption (%)	20	20

Test method

Thickness of film	: 0.15 mm
Water resistance	: Film immersed in water for 4 days at 23 ºC
Alkali resistance	: Film immersed in 1 N NaOH for 4 days at 23 ºC