

### Development article of CHEMIPEARL™ is :

- ★ polyolefin-based aqueous dispersion uses Mitsui Chemical's unique technology.
- ★ no chloric material or solvents.
- ★ improved adhesive strength for various substrates.

### Properties of development article CHEMIPEARL™

	Test Method	Unit	EP501H	EP151H	XEP800H
Main Composition	–	–	Propylene based		
Main Resin Melting Point	In-house Method	°C	–	80	140
Nonvolatile Matter	In-house Method	%	45	45	45
Viscosity	BM-type Viscometer	mPa·s at 25 °C	100	100	80
pH	pH Meter	–	10	10	10
Particle Size	Light Scattering Method	μm	0.4	0.4	0.2
MFT	In-house Method	°C	25≥	80≤	80≤
Features			For PP substrates		
			Heat-sealing agent	High adhesion	High molecular weight and melting point

	Test Method	Unit	HP-400	ET300H	EV210H
Main Composition			Modified propylene based	Ethylene based	Ethylene vinyl acetate based
Main Resin Melting Point	In-house method	°C	80	<50	80
Nonvolatile Matter	In-house Method	%	35	45	40
Viscosity	BM-type Viscometer	mPa·s at 25 °C	50	30	10
pH	pH Meter	–	10	13	11
Particle Size	Light Scattering Method	μm	0.4	0.4	0.3
MFT	In-house Method	°C	45	35	25≥
Features			For various substrates	For PE substrates	For EVA, PC substrates

Attention: The above data are typical, not standard values

## Adhesiveness with various substrates

Grade	ET300H		EV210H		HP-400	
Composition	Ethylene based		Ethylene vinyl acetate based		Modified propylene based	
Baking Temp.	80°C	120°C	80°C	120°C	80°C	120°C
h-PE	4	–	1	–	1	–
h-PP	2	2	1	1	4	4
Flexible PP	3	3	1	3	4	4
PET	1	–	2	–	4	–
PBT	1	1	1	3	4	4
PC	1	1	4	4	4	4
PS	1	–	1	–	4	–
PPE	1	1	4	4	4	4
PPS	1	1	1	4	4	4
PES	1	1	2	2	4	4
POM	1	1	1	1	4	4

PET : Polyethylene terephthalate PBT : Polybutylene terephthalate PC : Polycarbonate PS : Polystyrene  
PPE : Modified polyphenylene ether PPS : Polyphenylene sulfide PES : Polyether sulfone POM : Polyacetal

### Evaluation conditions:

Thickness : 10µm.

Baking : 80°C×30 min or 120°C × 30min

Test Method :

10 x 10 (1 mm width)

cross-cut adhesion test(using adhesion tape).

After drying 1day, count the square number that peeled off.

4 : No detachment

3 : Detachment 10 or less

2 : Detachment less than 50

1 : Detachment 50 or more than 50

## Heat seal strength of EP501H

Substrates	Heat seal strength [g/15mm]		
	Combination of EP501H		
	Non	1	2
CPP/CPP	1000		
CPP/Aluminium		1250	
CPP/PET			1050

### Evaluation conditions:

Thickness : 3µm

Drying : 150 °C×30 sec

Heat sealing :

200 °C×2 sec

(CPP/CPP: 150°C × 5sec)

Weight : 1 kg/cm<sup>2</sup>

Evaluate after 24 hr at room temp.

Peel angle : 180°

CPP: Cast Polypropylene

Please contact us for the details.

Although the contents written here are based on data and information from MCI, no guarantee can be given relating to this data at the present time. When handling this material, please carry out the correct safety measures.