

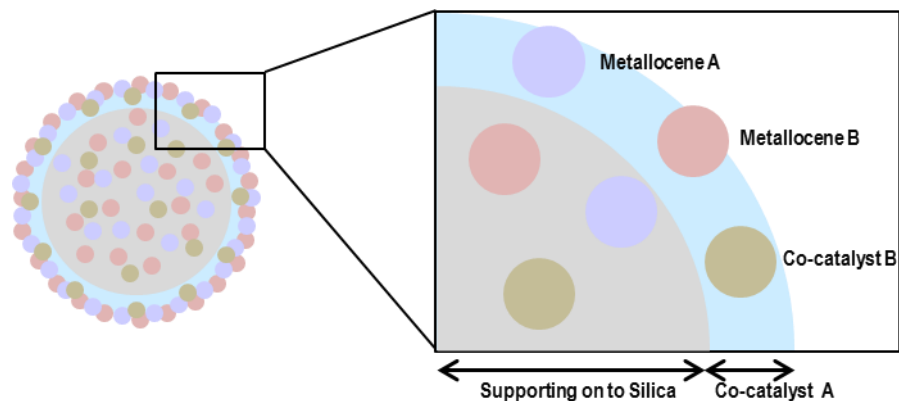


# Introduction of LG mHDPE for PE-Xa



## New metallocene PE-Xa (SL188)

### Structure of Supported metallocene Catalysts



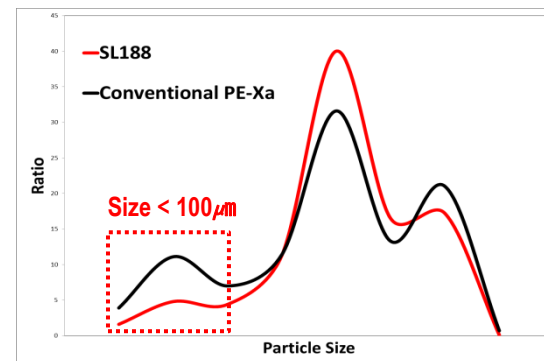
### Basic materials

Properties	Method	Unit	SL188	Conventional PE-Xa
MI (190 °C, 21.6Kg)	ASTM D1238	g/10min	2.5	2.1
Density	ASTM D792	g/cm <sup>3</sup>	0.948	0.948

### mechanical properties

yield Strength	D638	kg/cm <sup>2</sup>	280	285
Tensile Strength	D638	kg/cm <sup>2</sup>	520	520
Izod Impact Strength	D256		Non Break	Non Break

### Particle Size Distribution



- Low Fine Particle
- Narrow Particle size distribution

### Powder morphology

Properties	Method	Unit	SL188	Conventional PE-Xa
Bulk Density		g/m <sup>2</sup>	0.46	0.40
Particle Size	Tyler	μm	178	179

### Advantages

Oxidative induction time		min	12~14	2~5
Yellow Index	LG method		-1	8

# Processing Guide of LG Metallocene HDPE

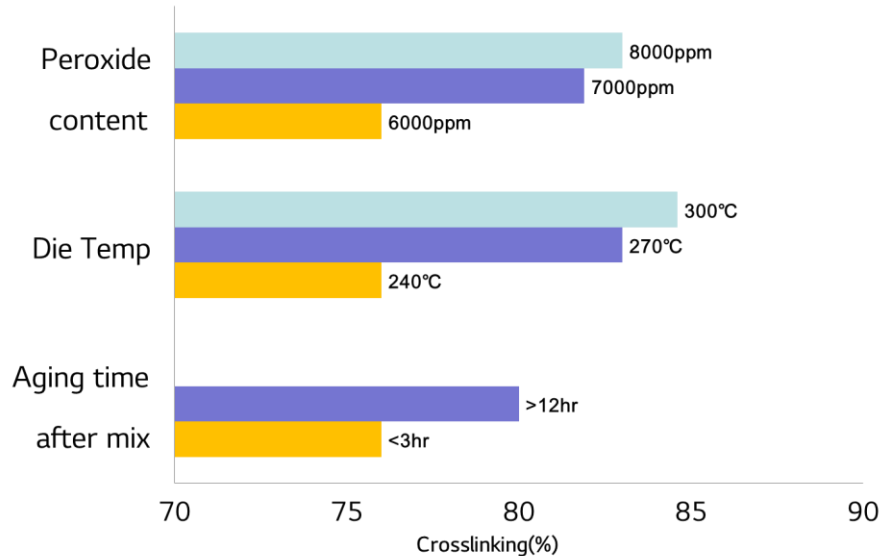
## Evaluation

Optimized processing condition for **degree of crosslinking** or **gloss**

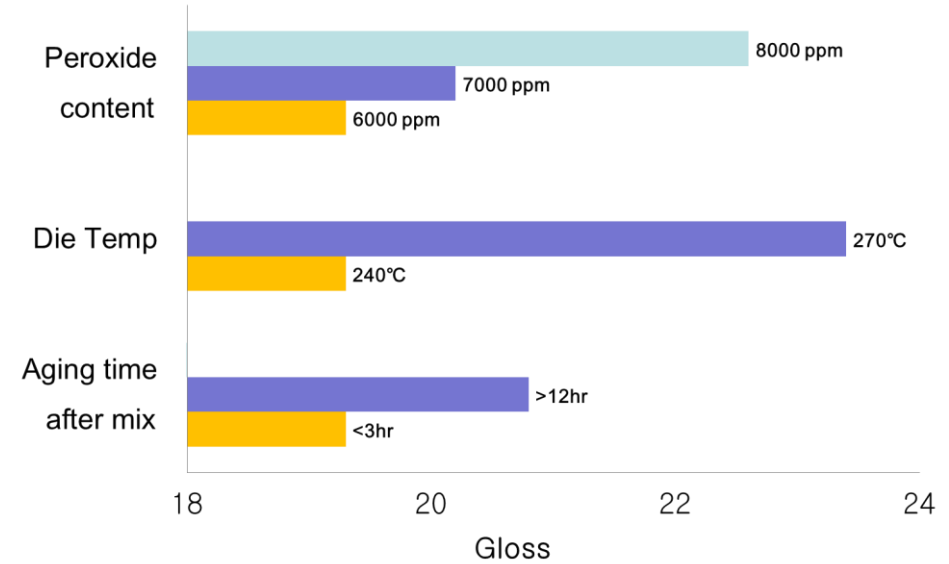
- Degree of crosslinking ↑

- ① Die Temperature ↑ ( In case of Die real Temperature < 250 °C)
- ② Peroxide amount ↑ (500ppm)
- ③ Production speed ↓

### Crosslinking test



### Gloss test



## Yellow Index



SL188



Conventional PE-Xa

## Resistance of oxidation 미성 (150 °C, 10days, Oven aging)



SL188



Conventional PE-Xa