

# Introduction of LGMMA<sup>®</sup> SA200 Series PMMA

LG MMA R&D center

## SA200 series is

Special PMMA copolymer to **improve surface hardness of polycarbonate.**

Well dispersed in the polycarbonate

Classified into 2-types according to usage

for transparent product ▶ **SA256**

for colored product ▶ **SA232**

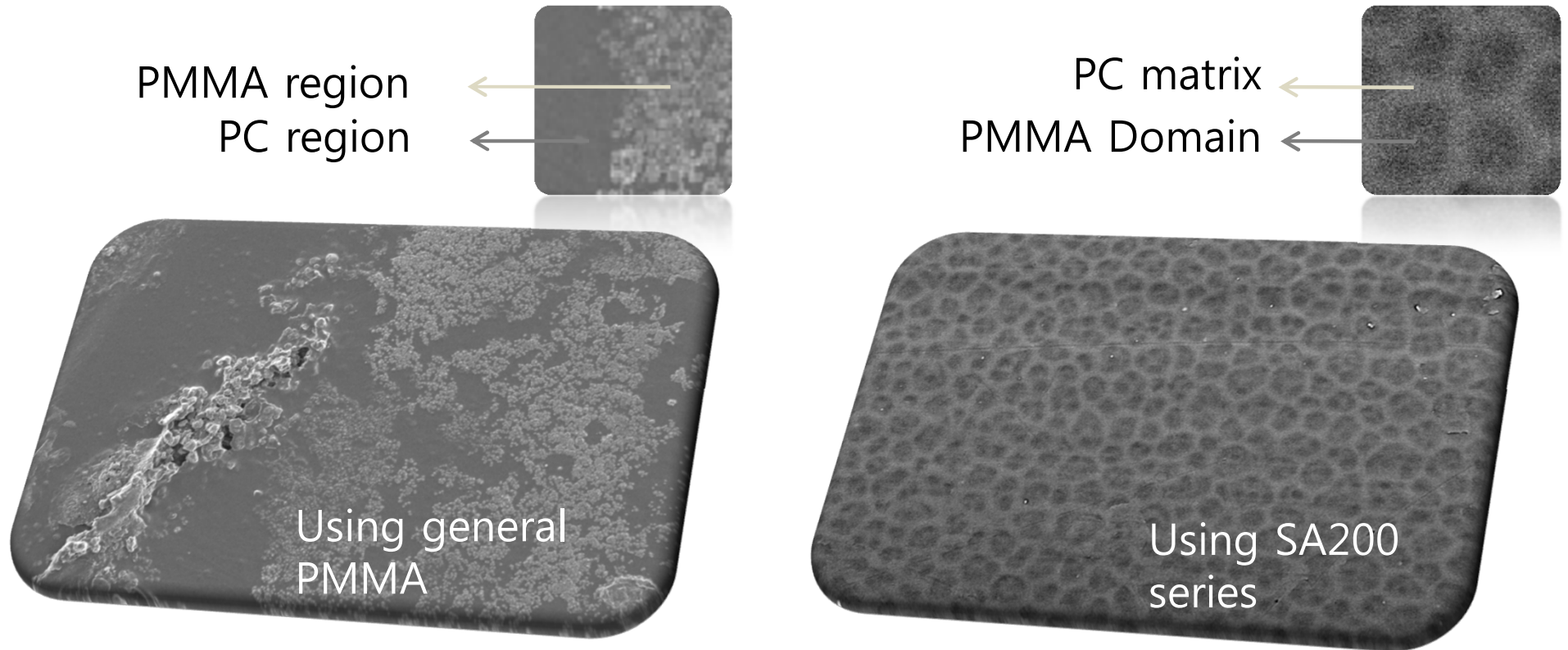
**Pencil hardness** can be improved **from 4B to H.**(at 40 wt% contents)

	PC (MI 10*)	PC+SA256 30%	PC+SA256 40%	PC+SA232 30%	PC+SA232 40%
Pencil hardness (1kgf)	4B	F	H	F	H
Pencil hardness (1kgf, after Si coating)	3H	7H	9H	7H	9H
Rock well hardness (M-scale)	44	80	86	78	86
MI(230°C, 3.8kgf)	1.6	4.8	7.8	1.7	4
Izod impact strength (1.4inch, notched)	17.8	1.4	1.4	2.8	2.3
Izod impact strength (1.8inch, notched)	NB	1.4	1.3	2.9	2.1
HDT(°C, annealed)	134	110	107	114	111
Light transmittance(3mm)	90%	90%	90%	Opaque	Opaque

\* 300°C, 1.2kgf condition

## SEM image of PC/PMMA Alloy

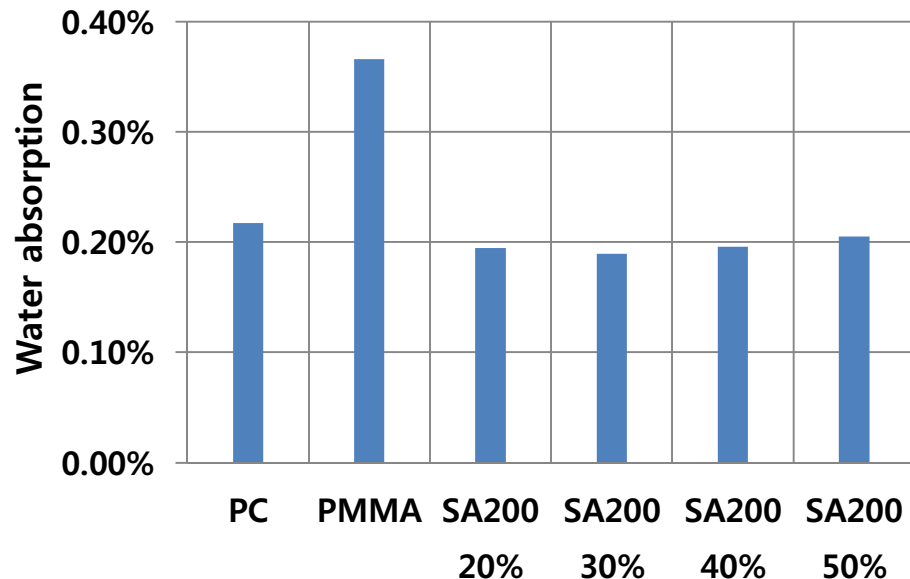
SA200 series is forming a uniform morphology in the polycarbonate matrix.



## Low moisture absorption

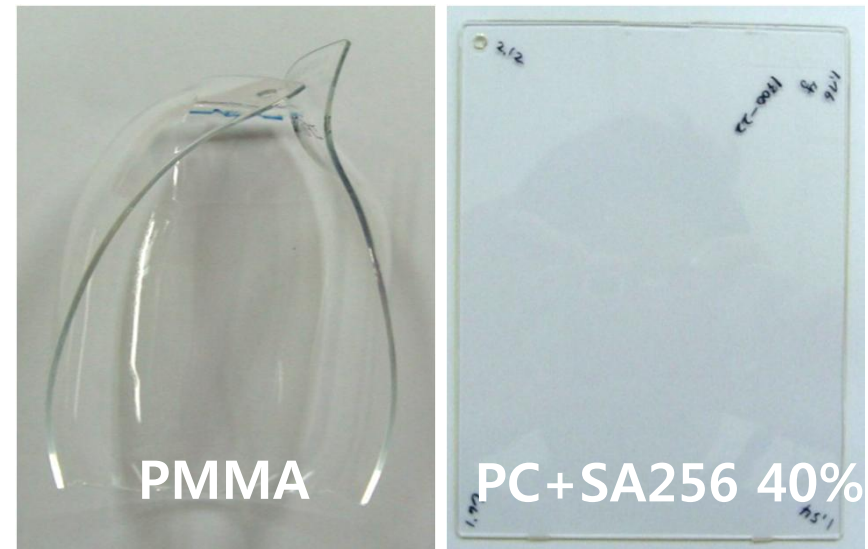
Up to 50% SA256 contents, water absorption is similar to the polycarbonate.  
According to the 8585 test results,  
SA256/PC alloy shows less strain than general PMMA.

### Water absorption test



- 1) Dried at 80°C for 24hr in the convection oven
- 2) water uptake at 25°C for 24hr in the water

### 8585 test (85°C, Humidity 85%, 72hr)



# LGMMA<sup>®</sup> SA200 Series

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## Applications

