

PMMA for painting free automotive exteriors [DELPET™ PB series]

Pillar garnish, Front grill, Rear combination lamp



Presented by TAKAGI SEIKO CORPORATION

① Challenge

- ▶ Painting free
- ▶ Better appearance
- ▶ Improvement of strength of PMMA moldings

② Insight

- ▶ High appearances by Developing coloring technologies
- ▶ Combination with high strength material by Double molding

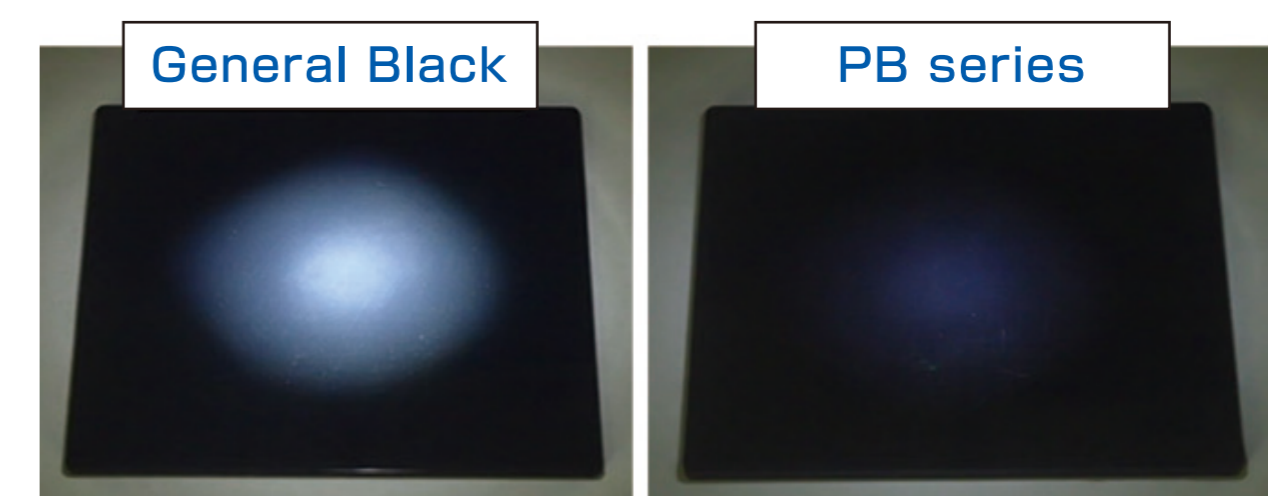
③ Result

- ▶ High gloss and Jetness
- ▶ various product line up
- ▶ Reduced environmental burdens by painting free processes

Product Features

- ① High jetness "Piano Black" series : The outstanding jetness and Weatherability equivalent to General black PMMA. PB series is adopted for automotive exteriors.

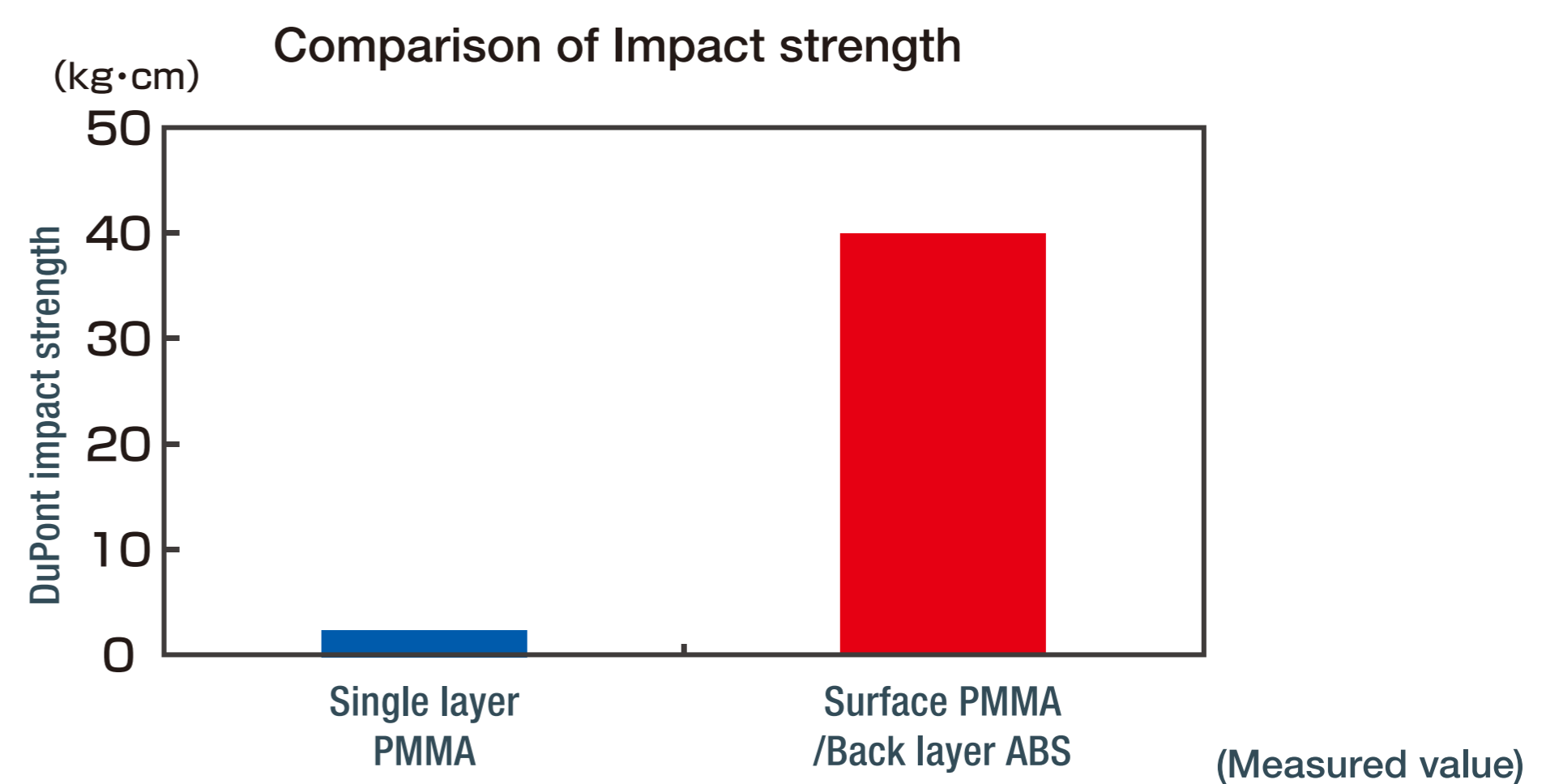
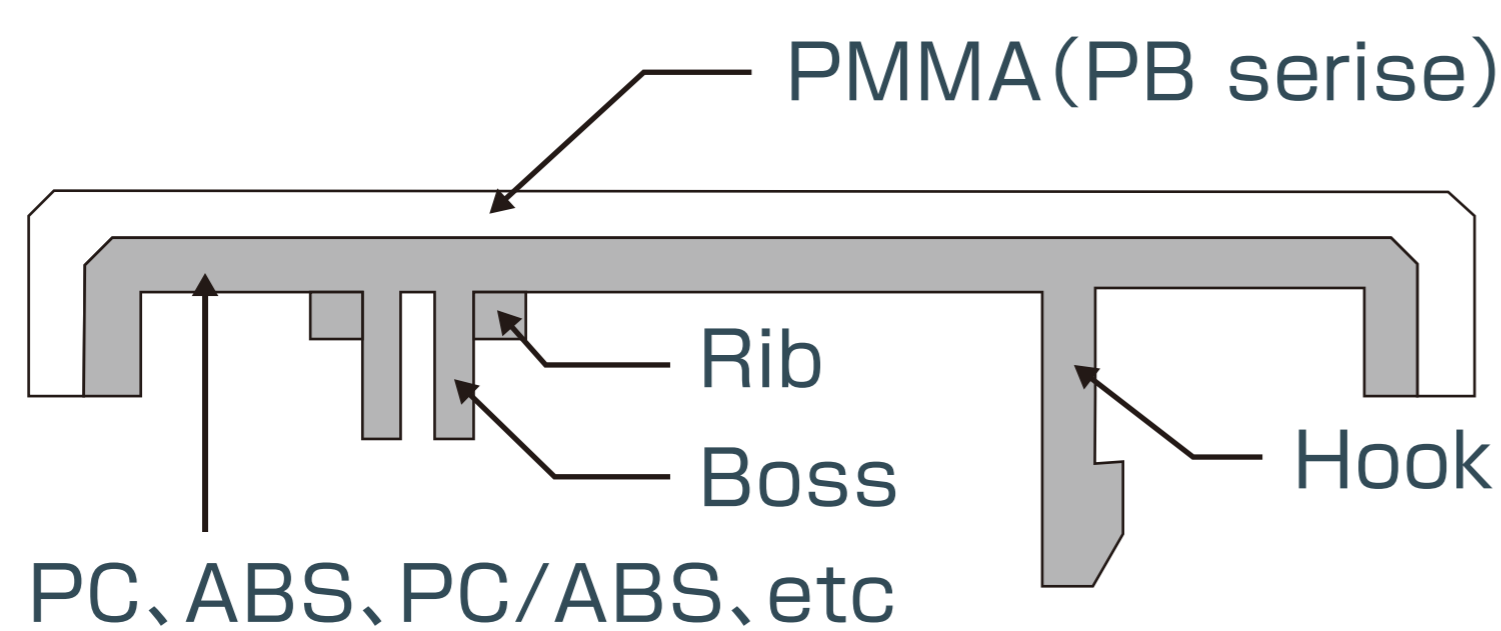
PB series can be seen Jet-black color even under LED light



- ② Various product line up

Properties	Unit	Standard grade	High flow grade	Solvent resistant grade	Good flow grade	High heat resistant grade (Prototype)	Conventional Piano Black grade
		PB01	PB21	PB22	PB23	XPB51	
Brightness (L*/SCE method)	—	0.6	0.6	0.6	0.6	0.8	1.2
Spiral flow distance (250 °C, 75 MPa)	cm	27	32	27	29	26	28
Tensile failure strain	%	6	5	7	6	5	5
Heat deflection temperature (1.8 MPa)	°C	100	100	98	98	118	98
Weatherability (Xenon:180W/m ² with rain:2000 hr)	ΔE	<2	<2	<2	<2	<2	2.4

- ③ Proposal of mechanical properties improvement by Double molding



The data provided for those properties are typical values, intended only as guides, and should not be construed as sales specifications.

State of Progress

Early Stages of Development

Development Completed