

Gamma-Ray Resistance, Steam Sterilization Grade

●MD-12##YA ●MD-22##TA

Introduction

Teijin has developed a number of resin businesses centered on the polycarbonate resin Panlite®, first commercialized by Teijin in Japan in 1960. Teijin has been researching and developing in the medical field for over 30 years. Based on the Company's pioneering spirit of making the impossible possible, Teijin provides solutions that support advanced medical care to meet the needs of its customers.



PC Transparent Grade

[Features]

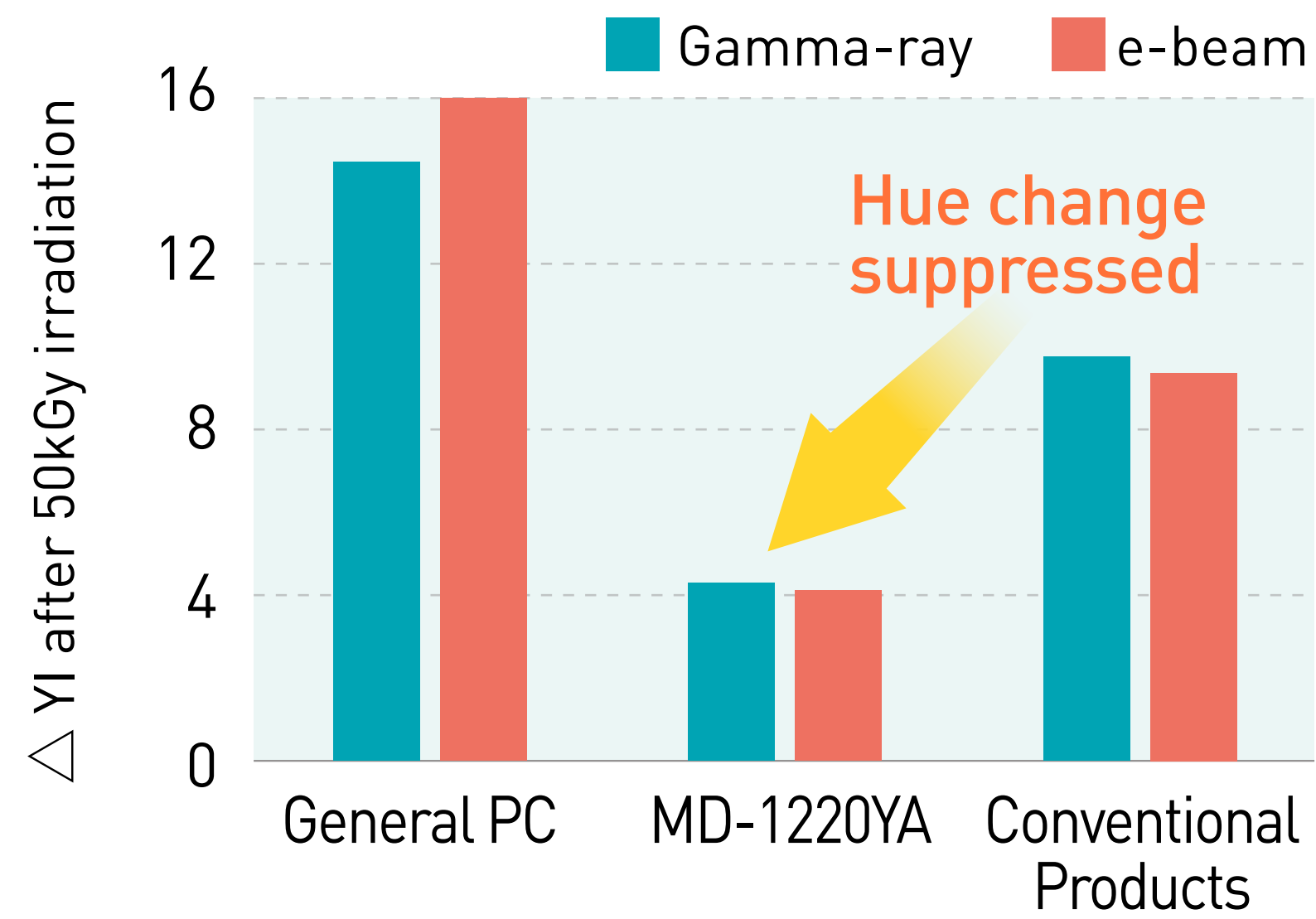
- The biocompatible grade has passed the ISO 10993 biocompatibility test.
- Lineup of grades with different moldability available for any shape of product.

Type	Grade	MVR* (cm ³ /10min)	Biocompatibility
Gamma ray/ electron beam sterilization	MD-1220YA	11	●
	MD-1200YA	19	●
Steam sterilization	MD-2220TA	10	●
	MD-2200TA	18	●

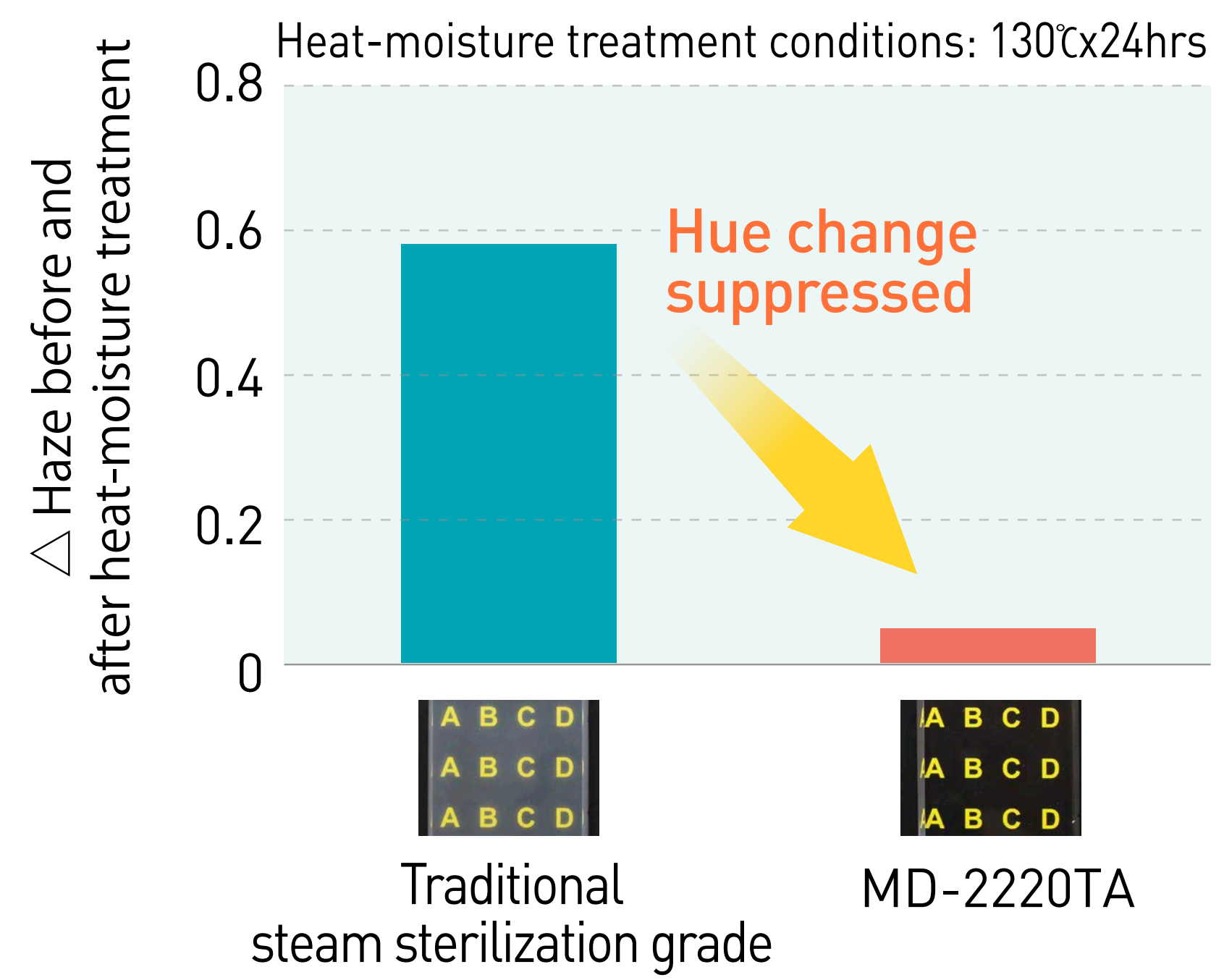
*Melt volume-flow rate measurement conditions: 300°C/1.2kg

Gamma-Ray/Electron-Beam Sterilization and Steam Sterilization Grades

Can be used safely for gamma-ray/electron-beam sterilization applications as there is little change in hue before and after gamma-ray/electron-beam irradiation.



Can be used safely in steam sterilization applications as there is little change in hue with heat-moisture treatment, and deterioration of physical properties can be controlled.



PC Transparent Grade - Physical Properties

Property	Unit	Standard	Conditions	Gamma-ray/electron-beam sterilization		Steam sterilization	
				MD-1220YA	MD-1200YA	MD-2220TA	MD-2200TA
				General	High flowability	General	High flowability
Density	kg/m ³	ISO 1183	—	1,200	1,200	1,200	1,200
MVR	cm ³ /10min	ISO1133	300℃ /1.2kgf	11	19	10	18
Tensile yield stress	MPa	ISO 527-1 ISO 527-2	50mm/ min	63	63	61	61
Tensile fracture stress	MPa			80	72	78	75
Tensile yield distortion	%			132	119	128	126
Flexural strength	MPa	ISO 178	2mm/ min	96	96	92	93
Flexural modulus	MPa			2,360	2,350	2,280	2,320
Charpy impact strength	kJ/m ²	ISO 179	Notched	77	46	74	66
Heat deflection temperature	℃	ISO 75-1 ISO 75-2	1.80MPa	127	125	130	128

*The values listed are typical values, not guaranteed values.