Dispersion of SEPTON™ BIO-series into polyolefin (Homo-PP, LDPE)

Elastomer R&D department
Elastomer division

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Formulation and molding condition

Formulation	1	2	3	4	5	6	7	8
SEPTON™ BIO-series SF902	30				30			
SEPTON™ BIO-series SF903		30				30		
SEPTON™ BIO-series SF904			30				30	
HYBRAR™ 7125				30				30
Homo-PP [*1]	70	70	70	70				
Bio-LDPE[*2]					70	70	70	70

*1 MFR 15g/10min (230deg.C/2.16kg)
*2 MFR 30g/10min (190deg.C/2.16kg)

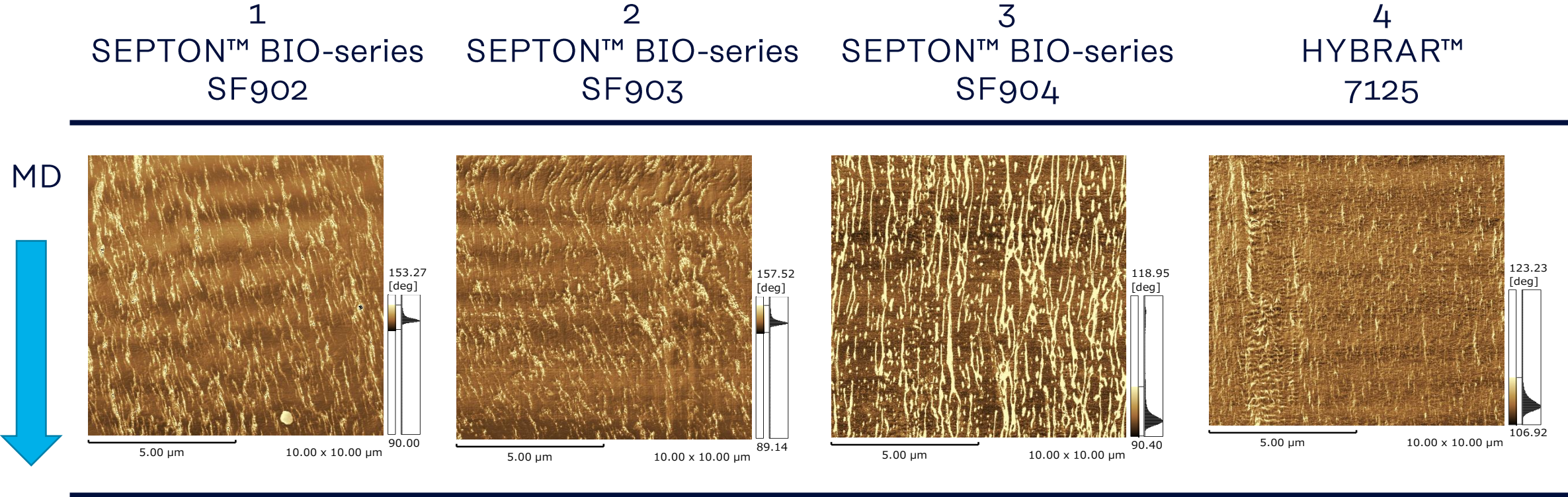| Molding condition: Injection molding	
Injection molding machine	EC75SX (Shibaura Machine Co., Ltd.) Clamping force: 75 tf
Cylinder temp.	210 deg.C
Mold temp.	40 deg.C
Blend	Dry blend

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Elastomer/ Homo-PP

SPM images of microtome section of compounds
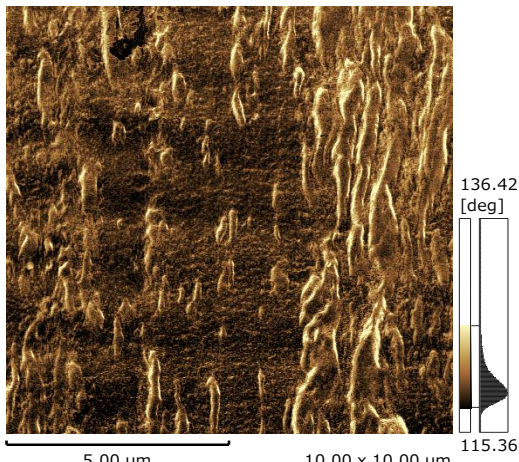

1 SEPTON™ BIO-series SF902	2 SEPTON™ BIO-series SF903	3 SEPTON™ BIO-series SF904	4 HYBRAR™ 7125

MD

153.27 [deg] ... 90.00
5.00 µm   10.00 x 10.00 µm

157.52 [deg] ... 89.14
5.00 µm   10.00 x 10.00 µm

118.95 [deg] ... 90.40
5.00 µm   10.00 x 10.00 µm

123.23 [deg] ... 106.92
5.00 µm   10.00 x 10.00 µm

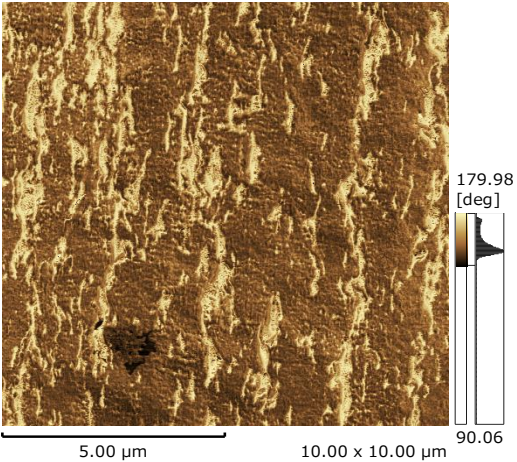# Elastomer/ LDPE

SPM images of microtome section of compounds

5 SEPTON™ BIO-series SF902	6 SEPTON™ BIO-series SF903	7 SEPTON™ BIO-series SF904	8 HYBRAR™ 7125

MD

179.98 [deg] 90.06 — 10.00 x 10.00 μm — 5.00 μm

160.93 [deg] 108.93 — 10.00 x 10.00 μm — 5.00 μm

158.66 [deg] 103.89 — 10.00 x 10.00 μm — 5.00 μm

136.42 [deg] 115.36 — 10.00 x 10.00 μm — 5.00 μm
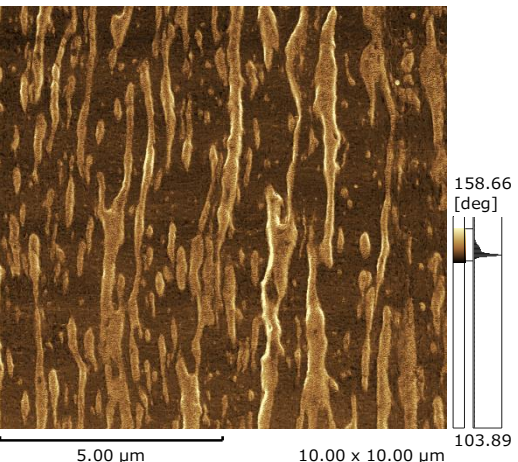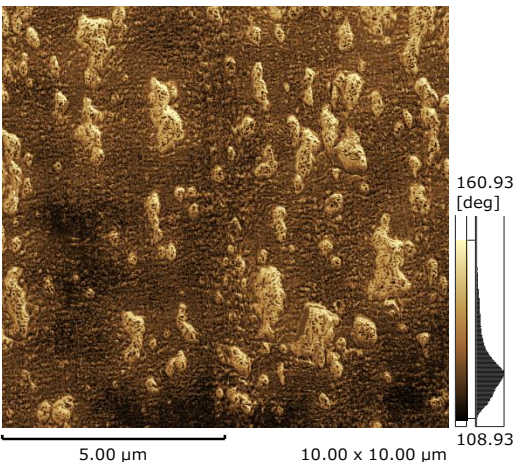
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