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Supporting information



S1 ¹H-NMR of PICT oligomer with ISB content of 20, 40, 60 mol%



S2 Possible breakage structure of ISB by hydration¹

Extruded PICT sample



S3 IR spectra of Processed PICT-I12



S4 IR spectra of Processed PICT-I17



S5 IR spectra of Processed PICT-I25

Each samples were analyzed using ATR-IR. There are no difference in IR spectrum for each samples even with longer residence time, indicating that thermal, thermo oxidative degradation does not occur during processing

Solid State NMR

The comparison with PCT and PICT-I25 in amorphous state, clearly shows the peak position of ISB at δ 82.6 and δ 89.5 indicated as ISB-1 and ISB-2



S6 Solid state CPMAS ¹³C-NMR of amorphous PCT and amorphous PICT-I25

	12	11	10	10S	ISB-1	ISB-2	9	8	7
Amorphous	7307	5890	6175	1724	1200	733	5236	5755	4837
200°C 10min	7132	5115	5614	2503	1126	574	6255	5661	4575
200°C 20min	8806	6044	6508	3002	1033	335	7953	6241	5443
200°C 30min	8383	6158	6412	2877	1241	602	7567	6397	5369
200°C 60min	9069	6436	6875	2922	1222	409	8253	6854	5517

S7 Intensity of each peaks in Solid State NMR



S8 Intensity difference of each peaks in Solid State NMR