

FIG 1/8

Mechanical properties of the thermoplastic polyurethane (TPU) materials of the examples 1 to 10

TPU material example #	1	2	3	4	5	6	7	8	9	10
MVR (5 min/10 kg/200 °C) [ml/10 min]	47,3	17,6	30,3	2,4	37,9	52,2	53,8	51,4	46,7	58
Hardness Shore D	45	46	44	45	47	48	52	47	48	51
Elongation at break [%]	546	436	527	482	558	607	541	456	566	481
Tensile strength [MPa]	38,0	31,4	36,8	40,9	33,6	37,0	33,5	24,4	24,3	24,2
Tensile 10% [MPa]	6,4	6,8	5,0	5,0	7,9	8,6	10,9	6,5	6,7	9,5
Tensile 20% [MPa]	9	9,6	7,6	7,9	10,5	11,3	14,0	9,1	9,5	12,0
Tensile 50% [MPa]	12,5	13,3	11,7	12,9	13,3	13,9	16,5	12,1	12,5	14,1
Tensile 100% [MPa]	14,9	16	16,2	18,2	14,9	15,3	17,3	14,6	13,7	15,0
Tensile 300% [MPa]	21,8	23,2	26,7	31,6	19,6	19,7	21,3	20,6	17,4	18,5
Flexural e-modulus [MPa]	109	117	102	92	145	150	203	136	136	202

Table 1

FIG 2/8

Mechanical properties of the TPU materials of the comparison examples 2 and 3 as disclosed in WO2011/039418 at RT

TPU material	Example 2	Example 3
MVR (5 min/10 kg/200 °C) [ml/10 min]	13,5	50
Shore D	43	46
Elongation at break [%]	580	524
Tensile strength [N/mm ²]	34	27
Tensile 10% [N/mm ²]	5,4	6,4
Tensile 20% [N/mm ²]	7,5	8,7
Tensile 50% [N/mm ²]	10,2	11,2
Tensile 100% [N/mm ²]	12,6	12,6
Tensile 300% [N/mm ²]	18,8	17,1
Rebound [%]	51	40
Flexural E-modulus [N/mm ²]	88	100

5 Table 2

FIG 3/8

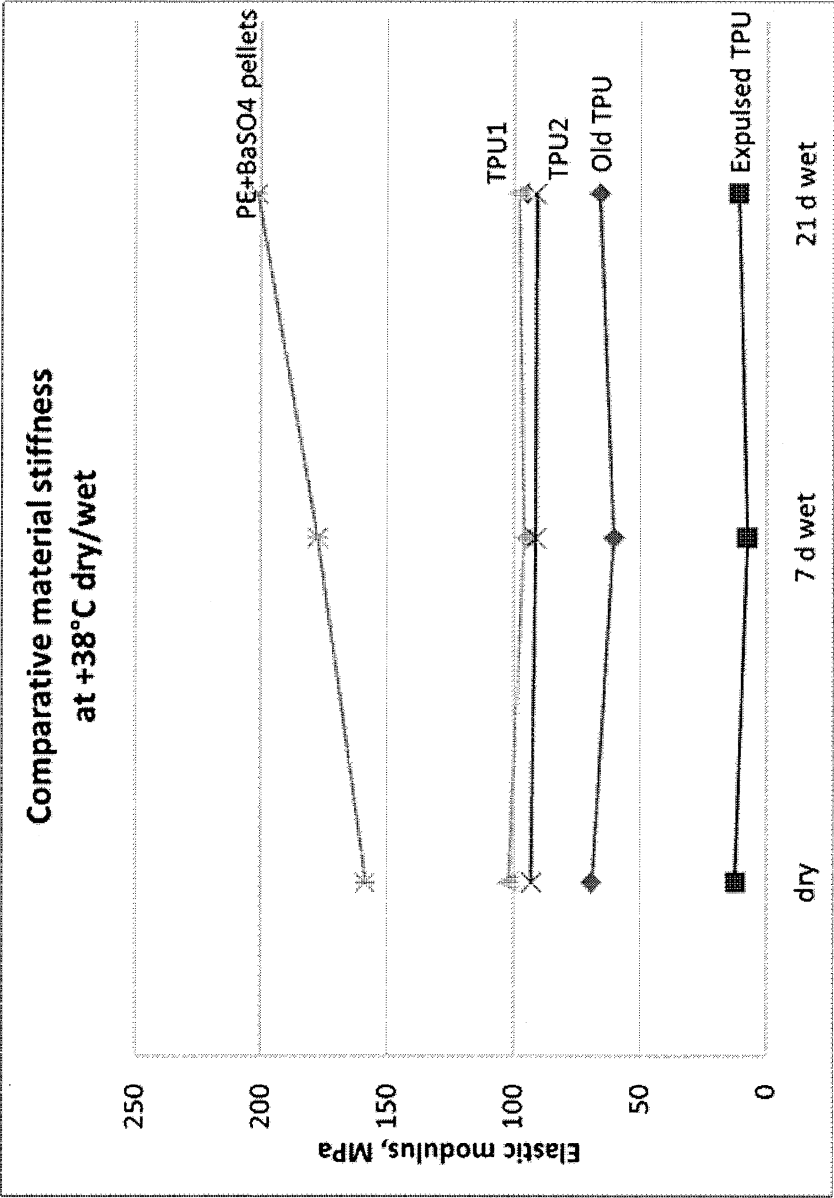


FIG 4/8

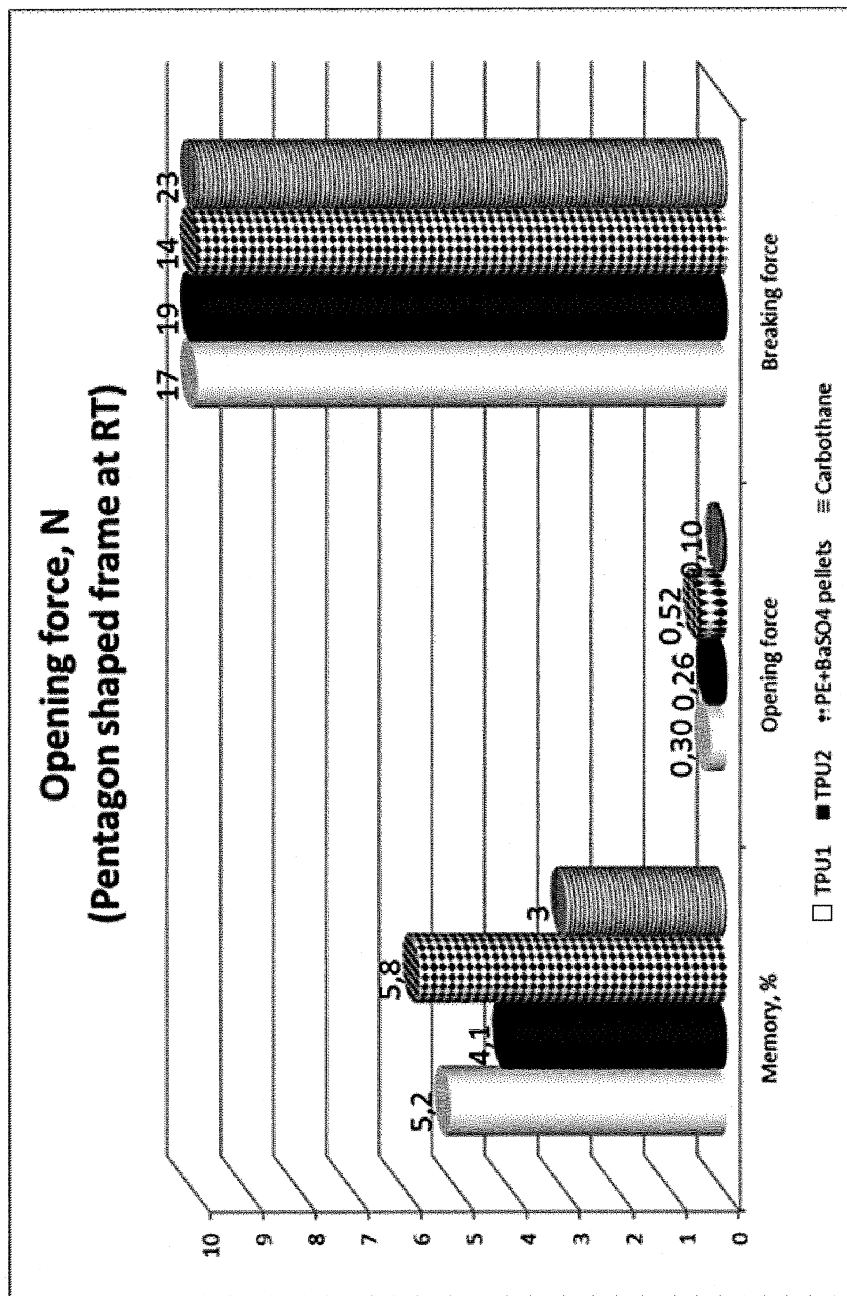


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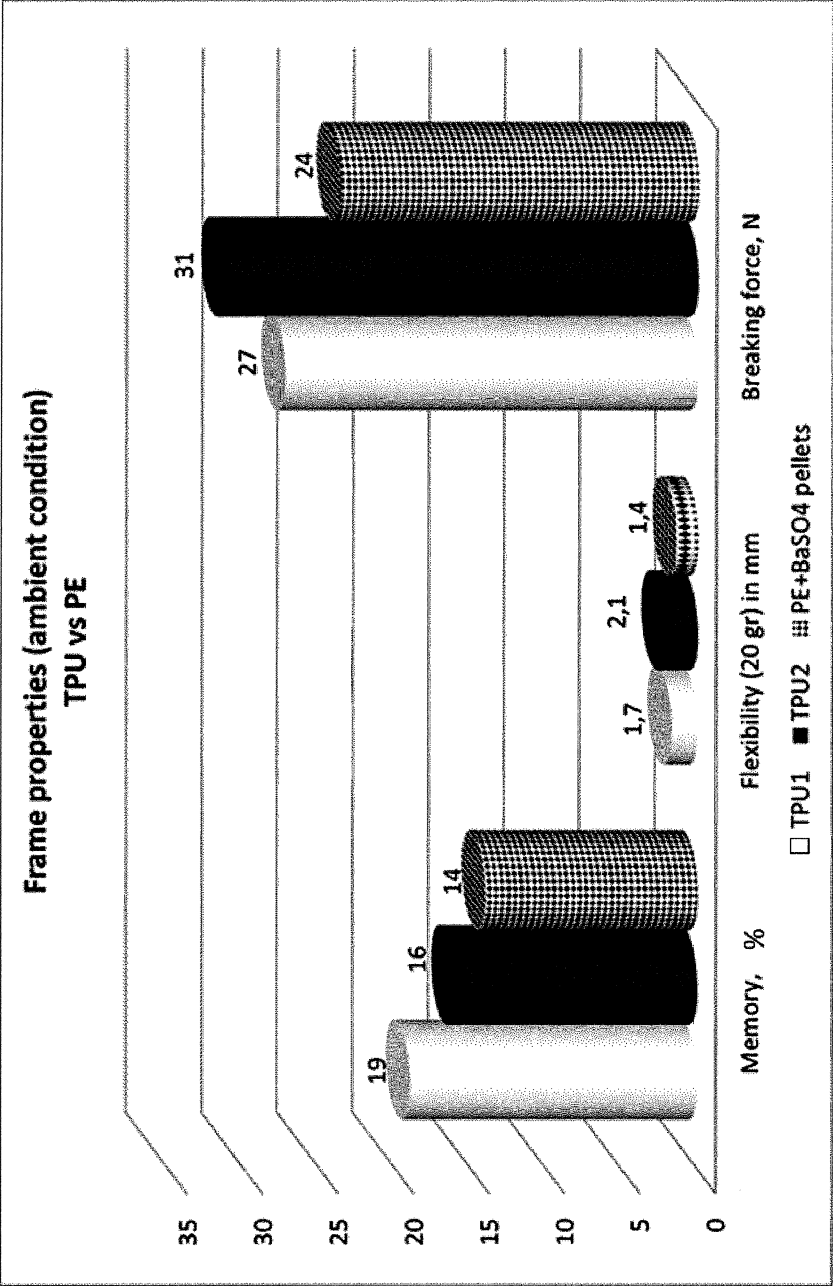


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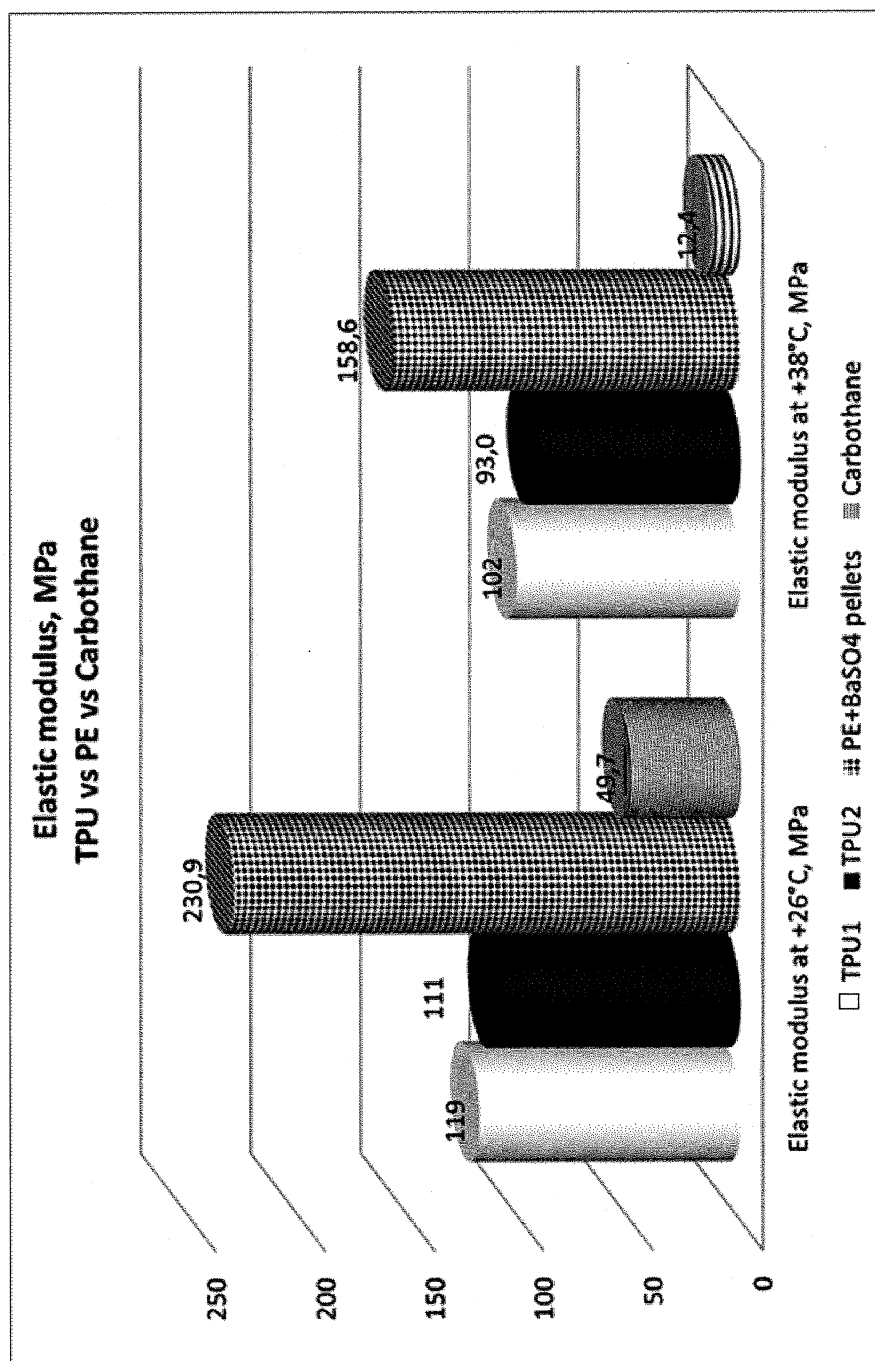


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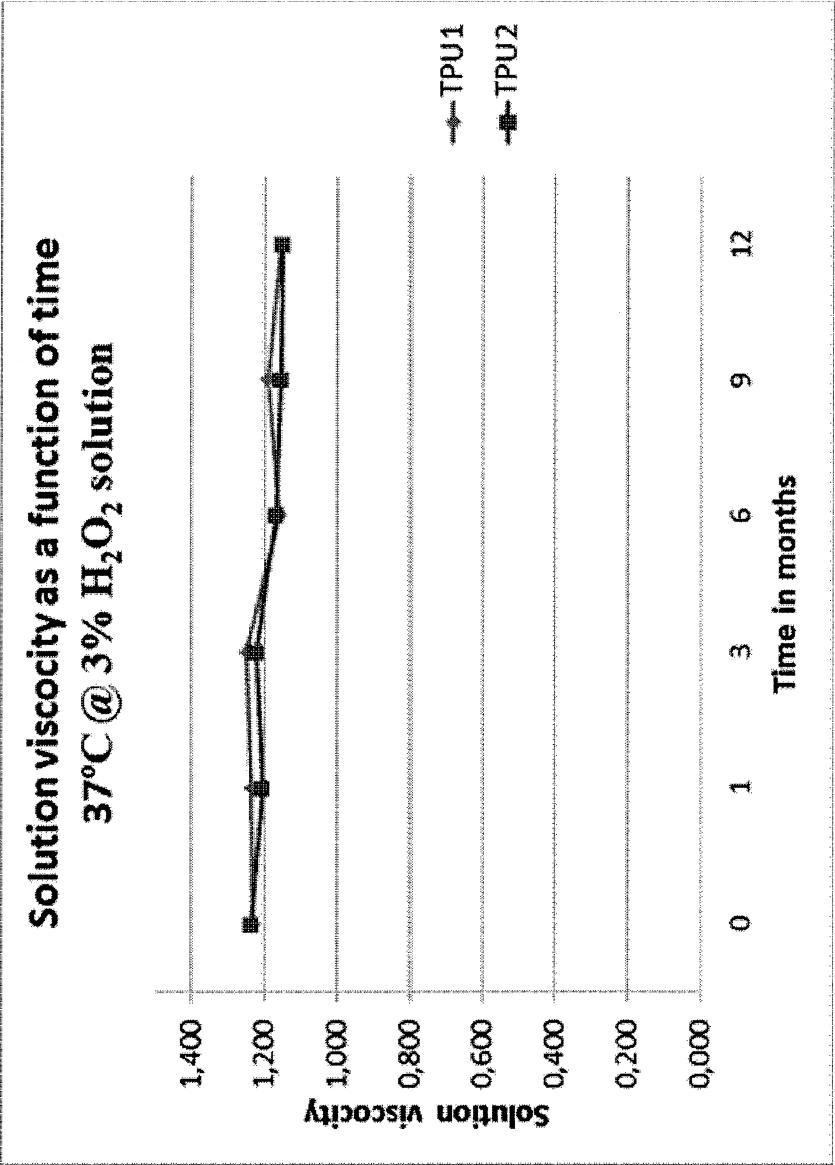


FIG 8/8

