

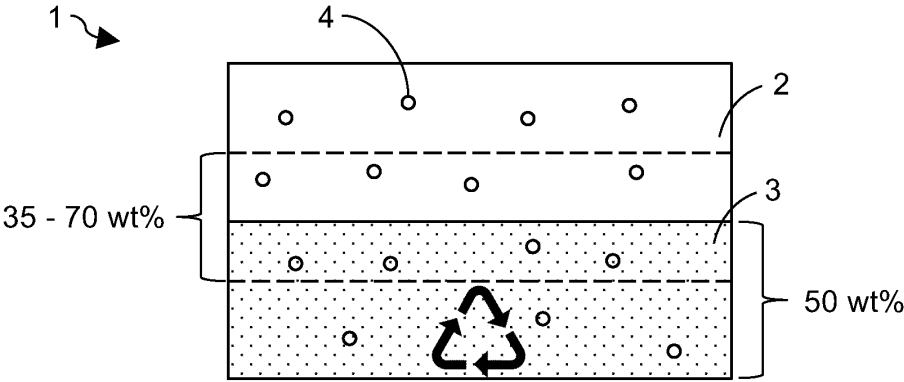


FIG. 1

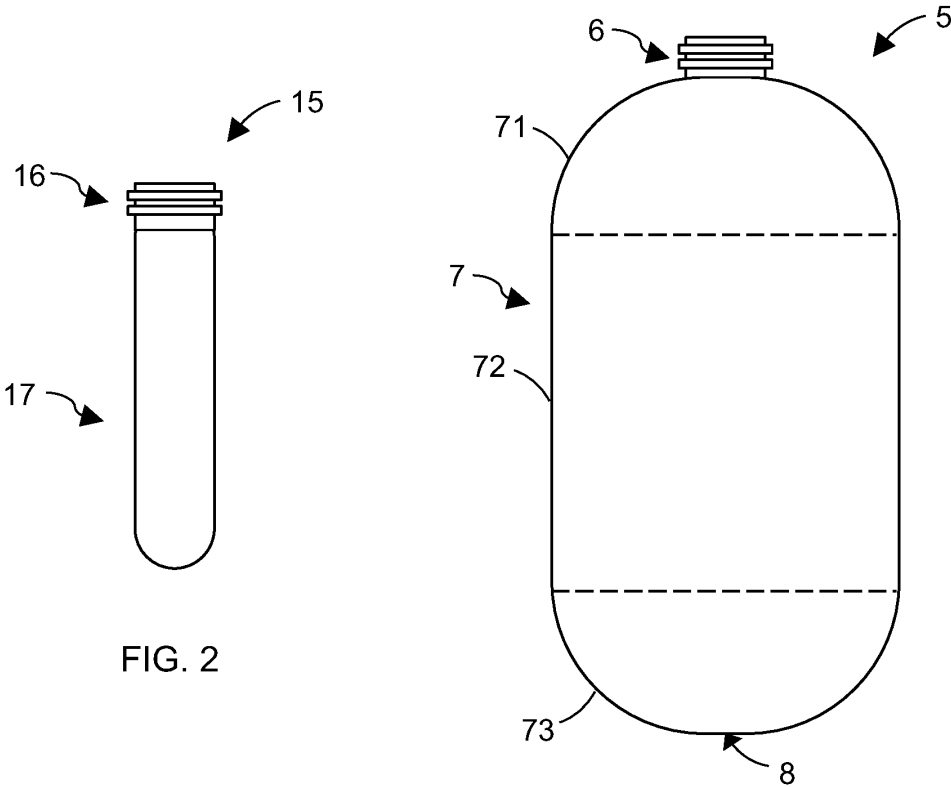


FIG. 2

FIG. 3

2/12

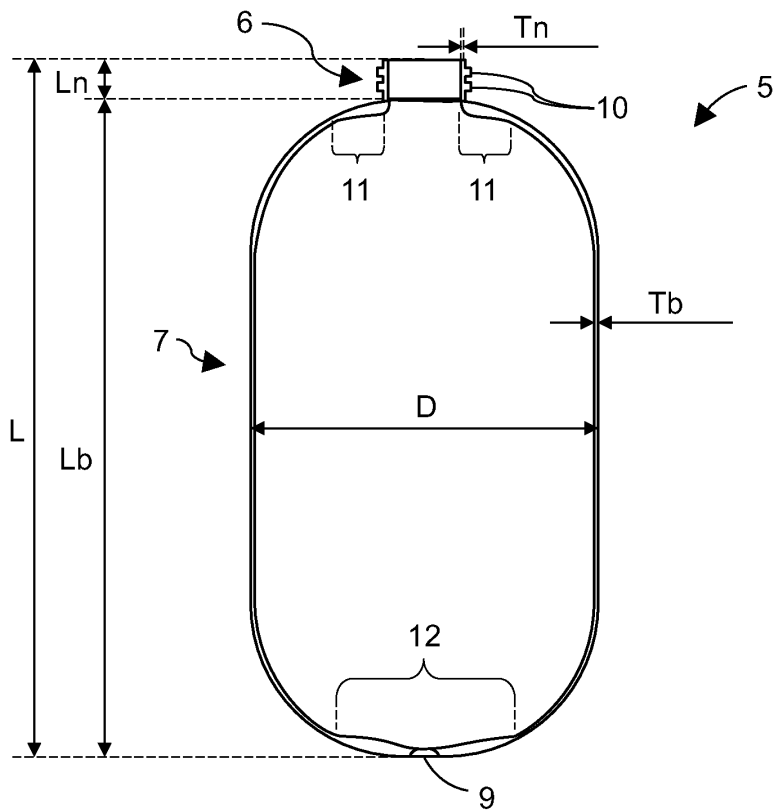


FIG. 4

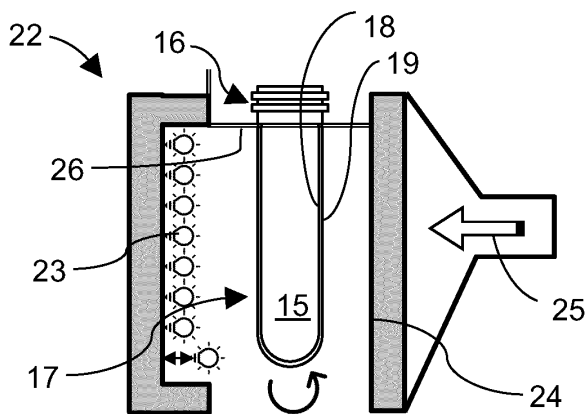


FIG. 5

3/12

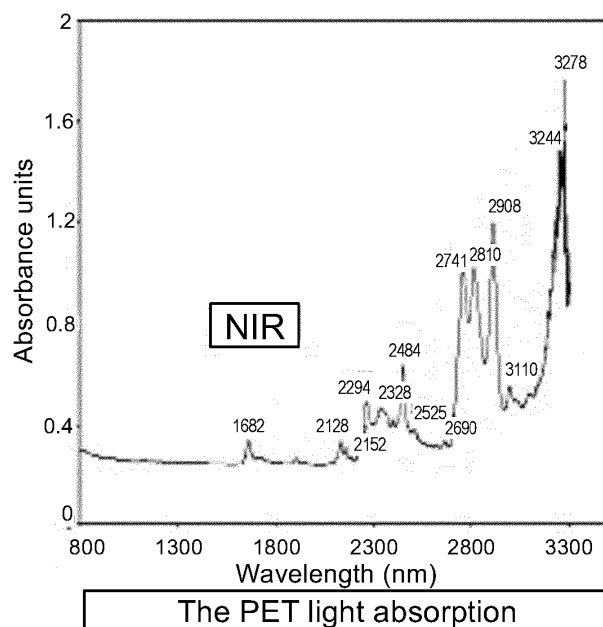


FIG. 6

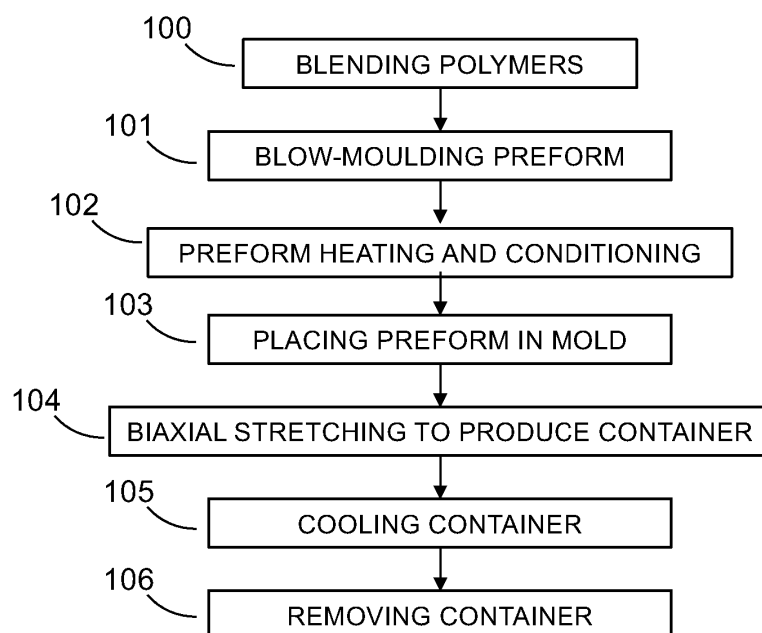


FIG. 7

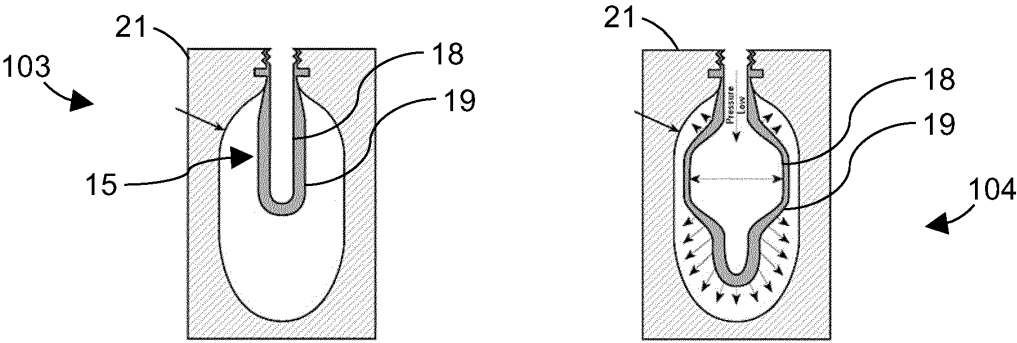


FIG. 8A

FIG. 8B

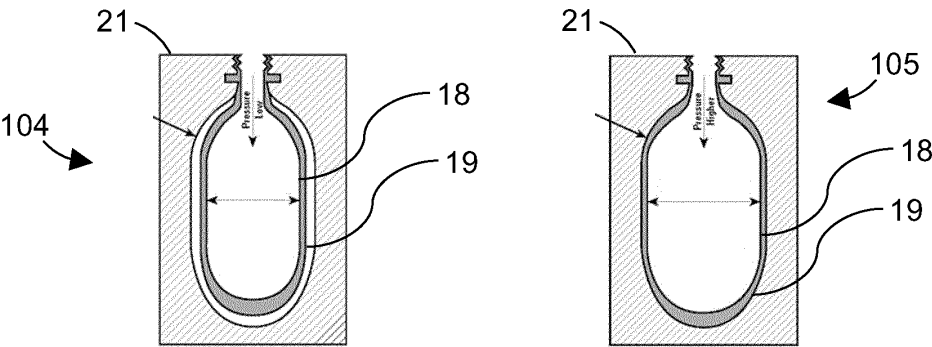


FIG. 8C

FIG. 8D

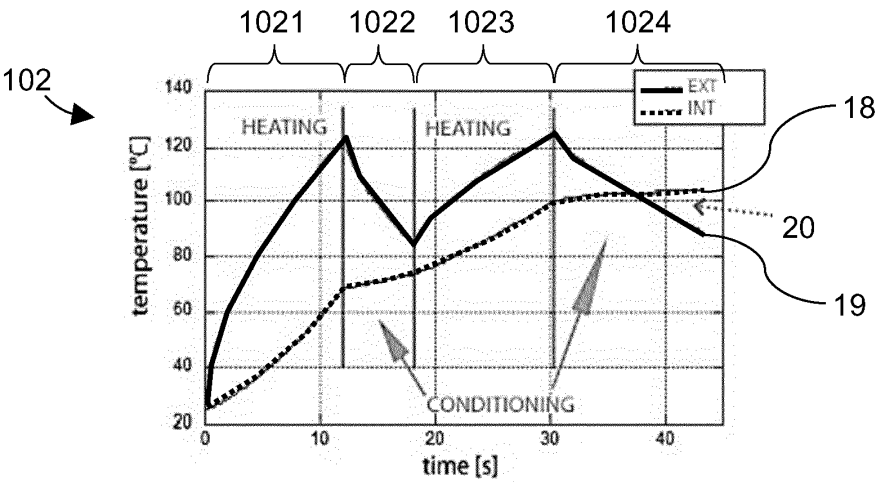


FIG. 9

5/12

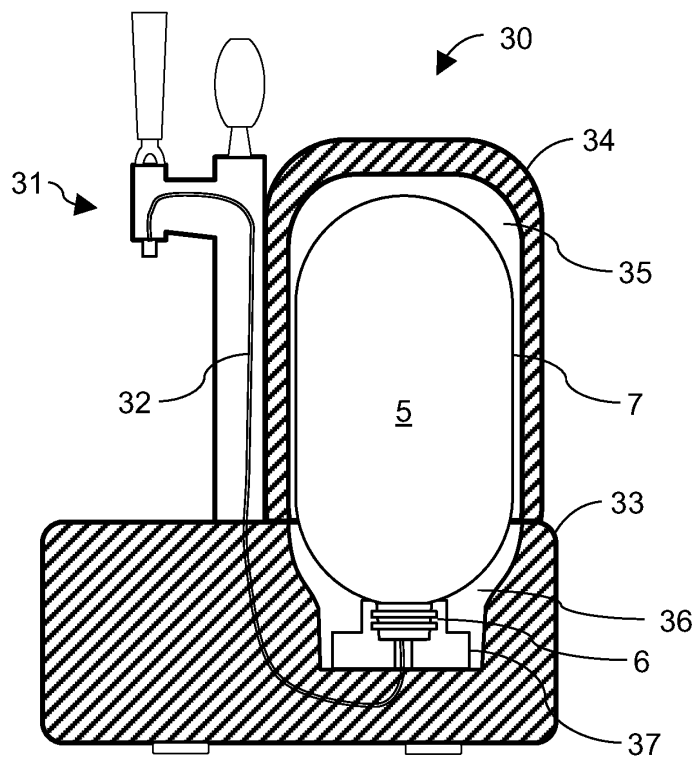


FIG. 10

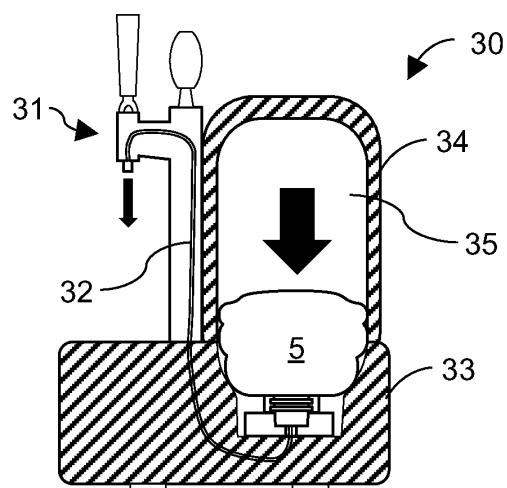


FIG. 11

6/12

Physical properties	Value	Units	Method
Weight of 50 granules	1.00	g	Weighing
Bulk density	870	kg/m ³	ASTM D 1895
RPET content	100%	wt%	
Density	1400	kg/m ³	ASTM D 1505
Crystallinity	61	%	Calculated ⁽²⁾
Color: - L-value - a*-value - b*-value	76.0 ± 5 -4.0 ± 1.5 -0.5 ± 1.5	- - -	SMA EC 2.37 ⁽¹⁾ Cielab
Intrinsic Viscosity (IV)	0.80 ± 0.02	dl/g	SMA EC 2.23 ⁽¹⁾
Glass Transition Temperature (T _g)	77	°C	ASTM D 3418
Crystalline Melting Temperature (T _m)	247	°C	ASTM D 3418
Acetaldehyde (AA): - average - maximum	0.7 1.5	ppm ppm	SMA EC 2.46 ⁽¹⁾
Moisture absorption equilibrium at 23°C, 50% rH	0.3	%	

FIG. 12

Property	Value (blend)	Test Method
Intrinsic Viscosity (IV)	0.84 – 0.88 dl/g	Solution Viscosity ⁽⁰⁾
Acetaldehyde	max. 1.5 ppm	GC
Melting point	max. 258°C	DSC
Moisture content ⁽¹⁾	max. 0.25 wt. %	Karl Fischer Titration
Chip Size (chips/10g)	600 – 650	Weight

FIG. 13

Property	Method	Units	Typical Value
Melting point (T _m)	DSC	°C/°F	237 / 459
Glass transition temperature (T _g)	DSC	°C/°F	85 / 185
Specific gravity	ASTM D792	--	1.22
Relative Viscosity	ISO 307	--	2.65
Melt Flow Rate (MFR) at 275°C & 0.325kg	ASTM D1238	g/10 min	2.0
Melt viscosity 260°/270° at 100 sec ⁻¹ 260°/270° at 1000 sec ⁻¹		Pa·s	770 / 550 300 / 250
Tensile strength	ASTM D638	MPa	99
Tensile elongation at break	ASTM D638	%	23
Tensile modulus	ASTM D638	GPa	4.7
Water absorption equilibrium in water at 20°C	ASTM D570	%	5.8

FIG. 14

7/12

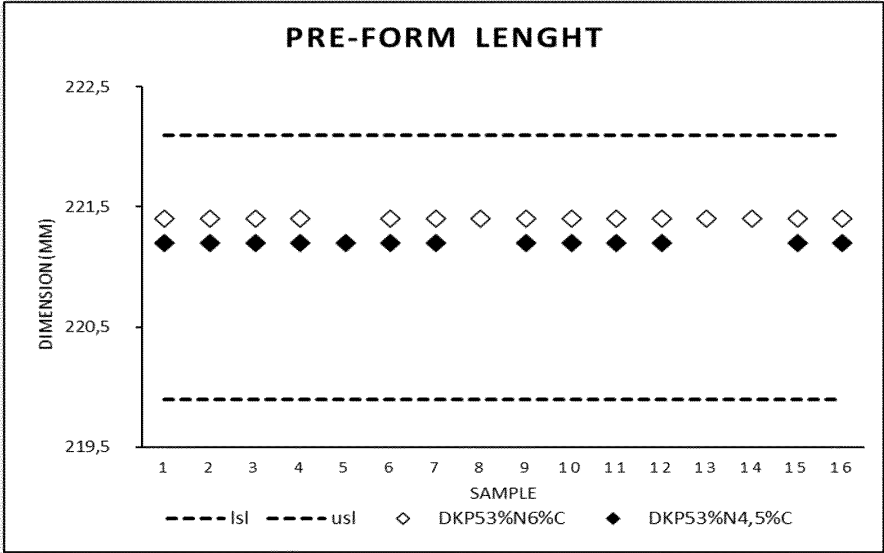


FIG. 15A

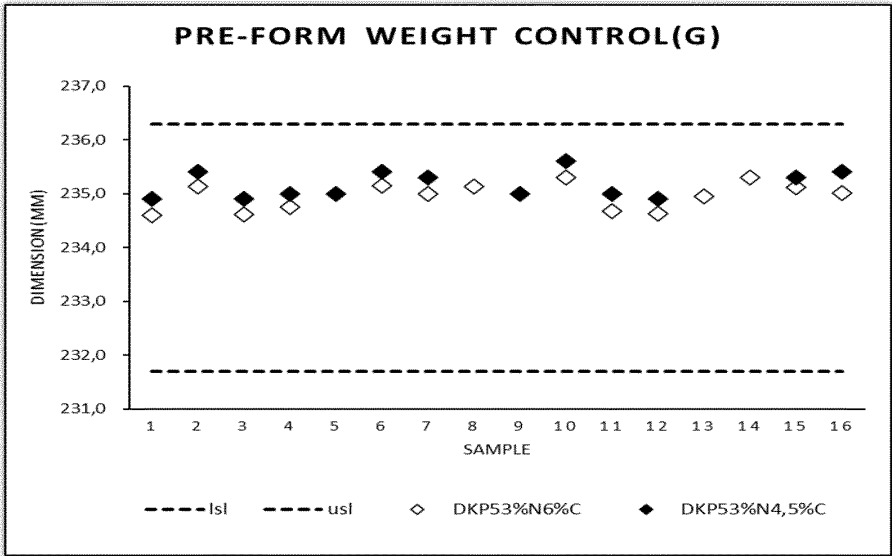


FIG. 15B

8/12

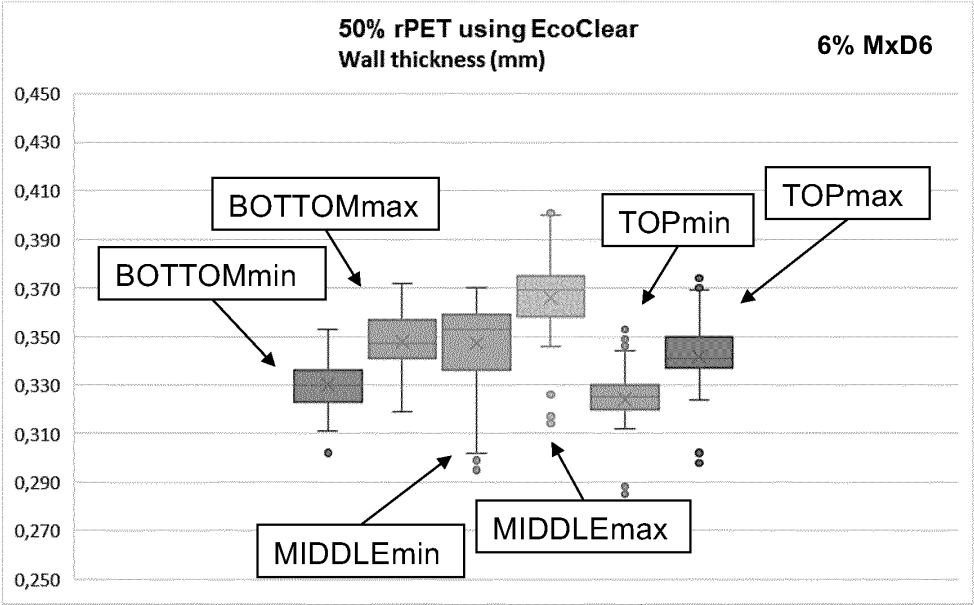


FIG. 16A

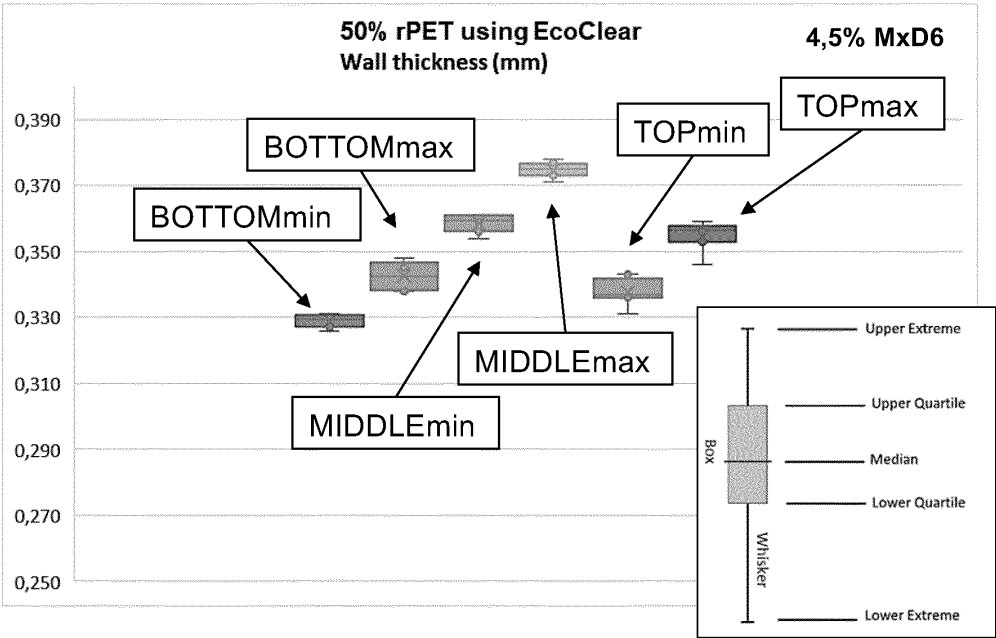


FIG. 16B

9/12

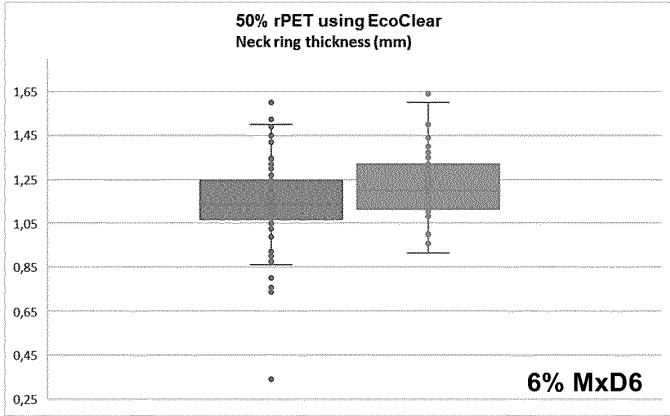


FIG. 17A

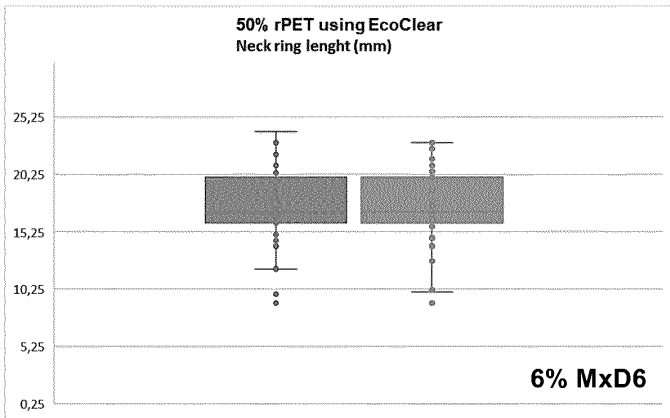


FIG. 17B

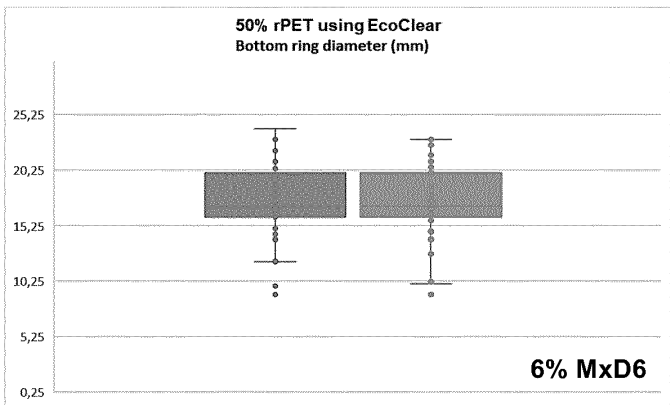


FIG. 17C

10/12

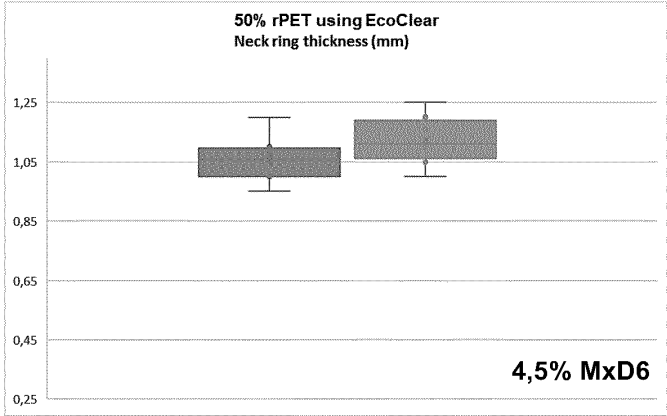


FIG. 18A

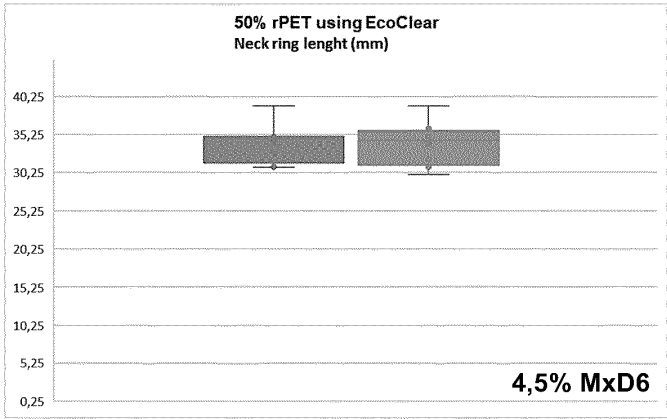


FIG. 18B

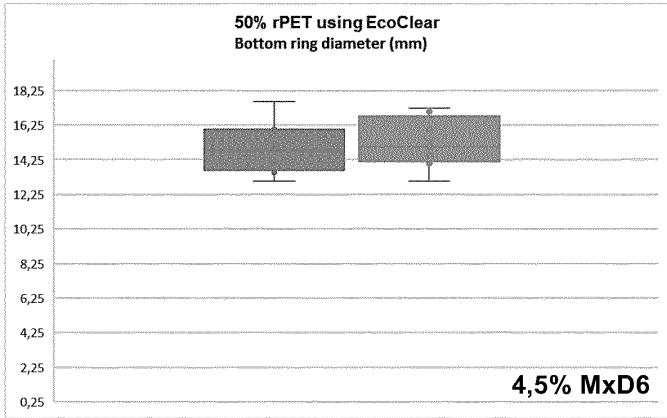


FIG. 18C

11/12

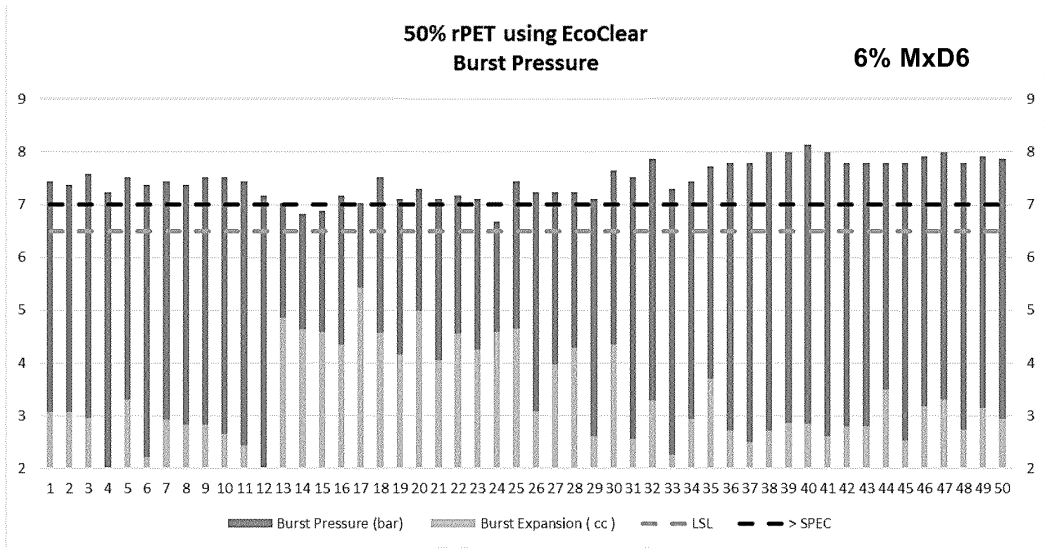


FIG. 19A

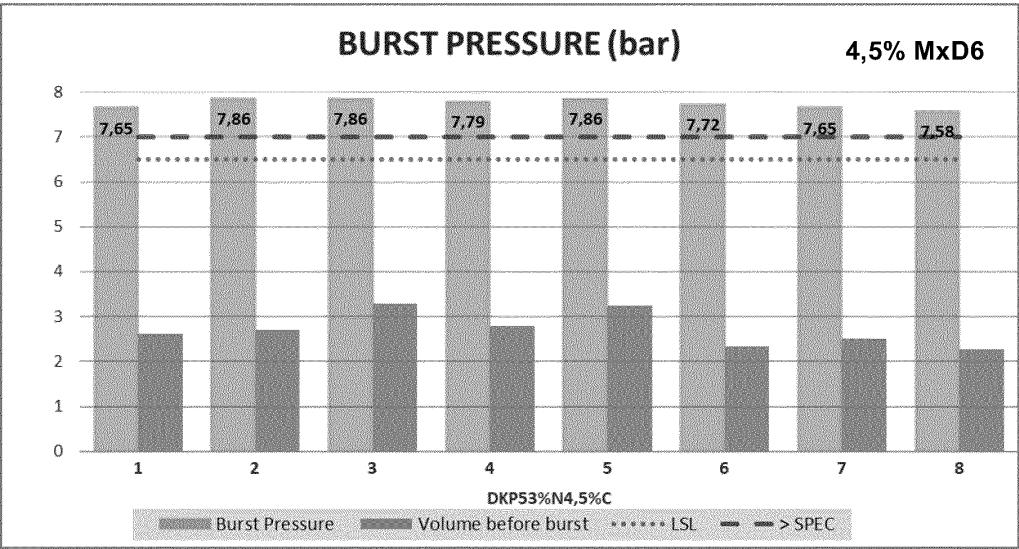


FIG. 19B

12/12

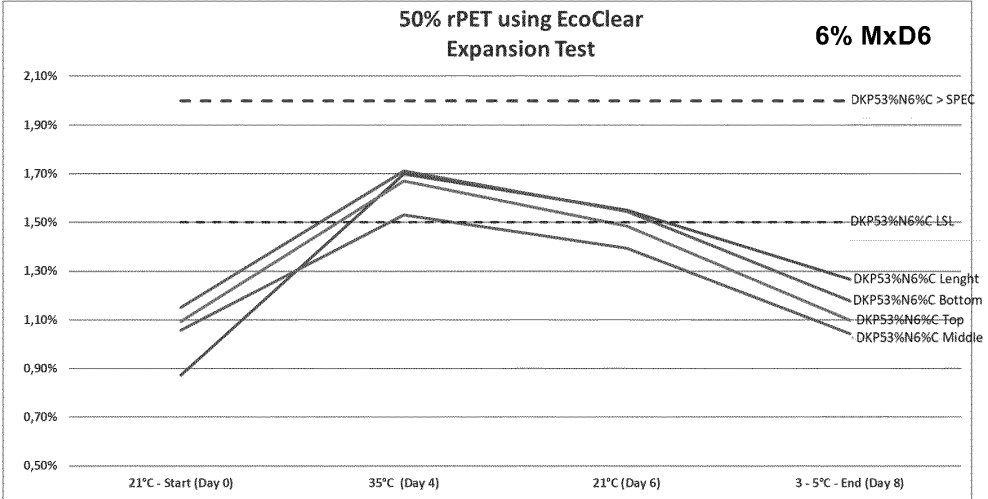


FIG. 20A

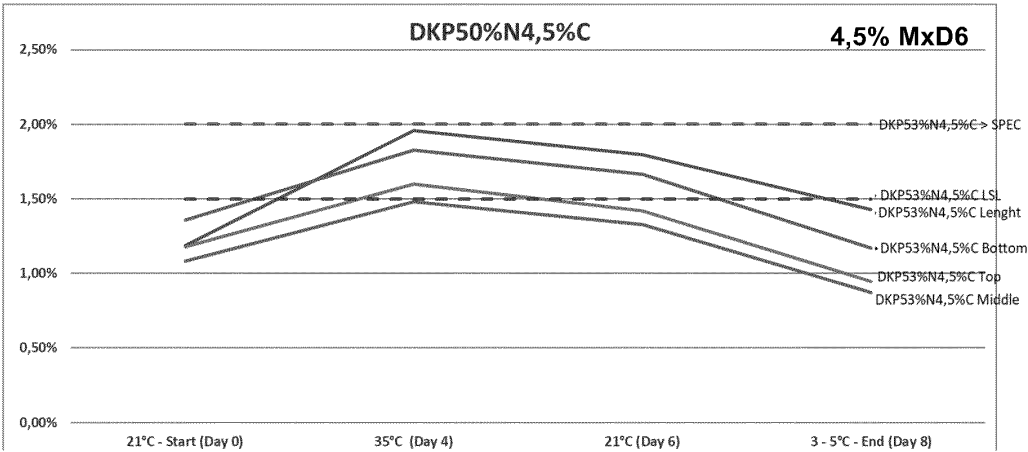


FIG. 20B