

Fig. 1a

Fig. 1b

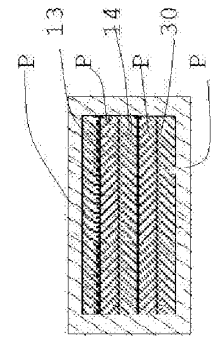


Fig. 1c

Fig. 1f

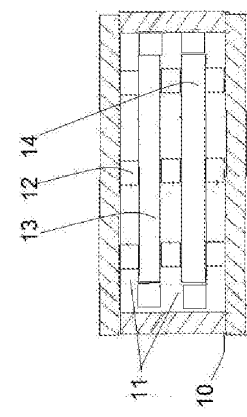


Fig. 1e

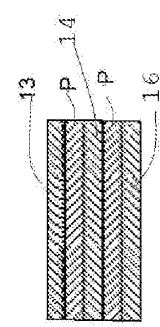


Fig. 1d

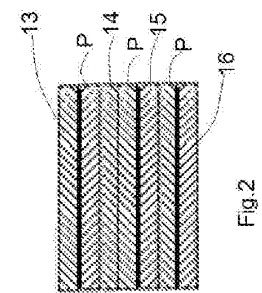


Fig. 2

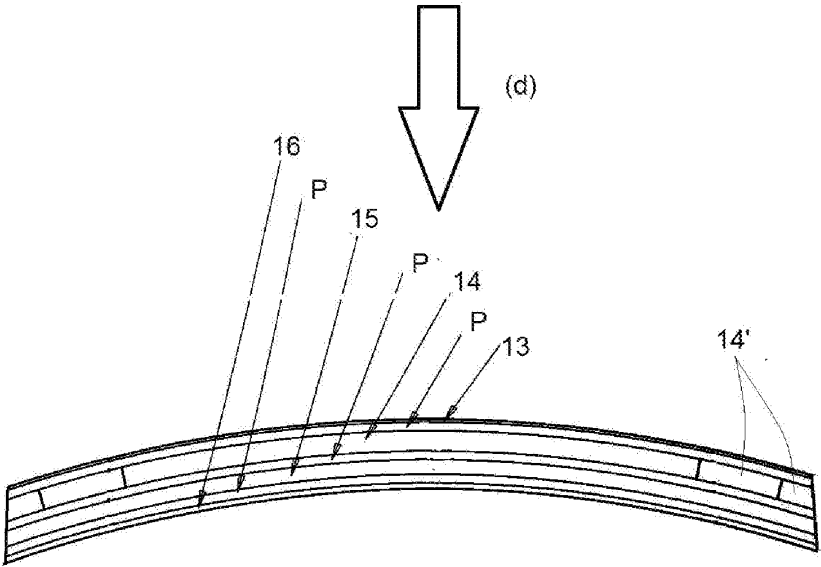


Fig.3

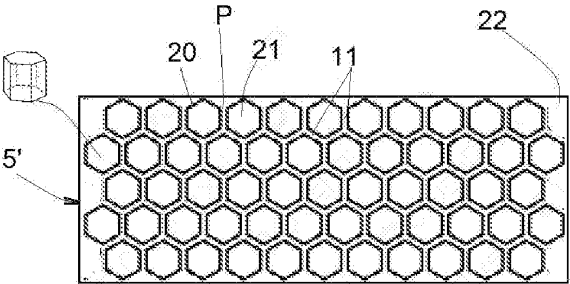


Fig.4

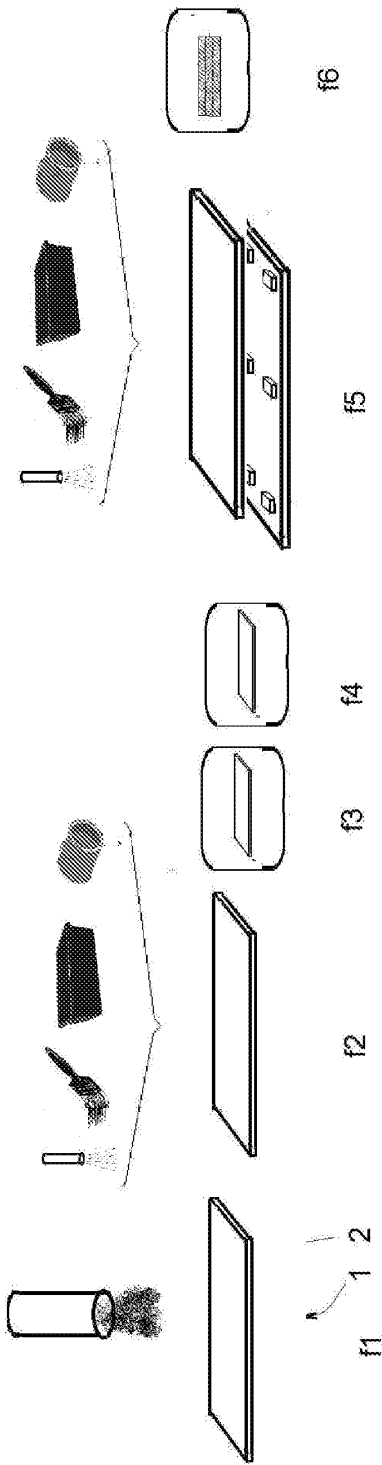


Fig. 5

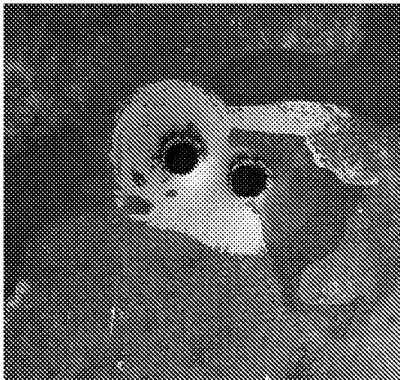


Fig.6a



Fig.6b

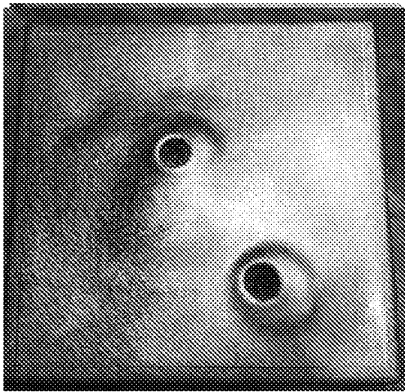


Fig.7a

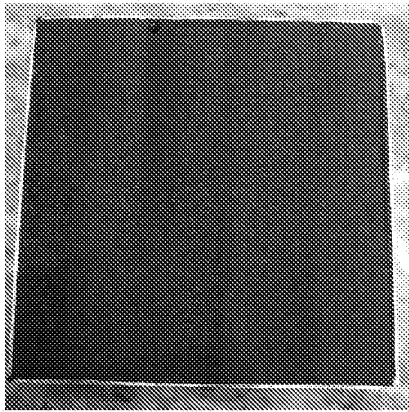
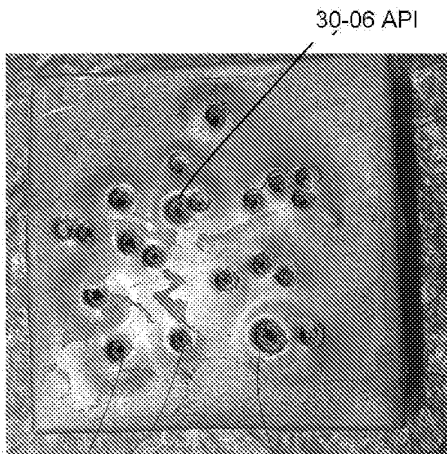


Fig.7b



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Fig.8a

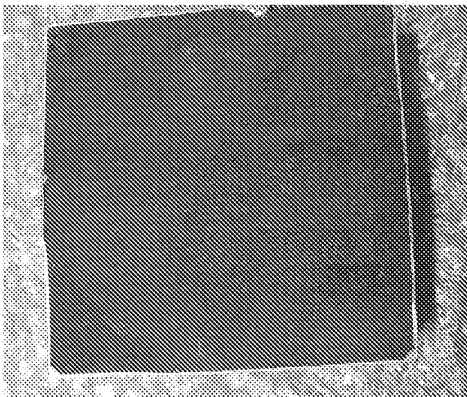


Fig.8b

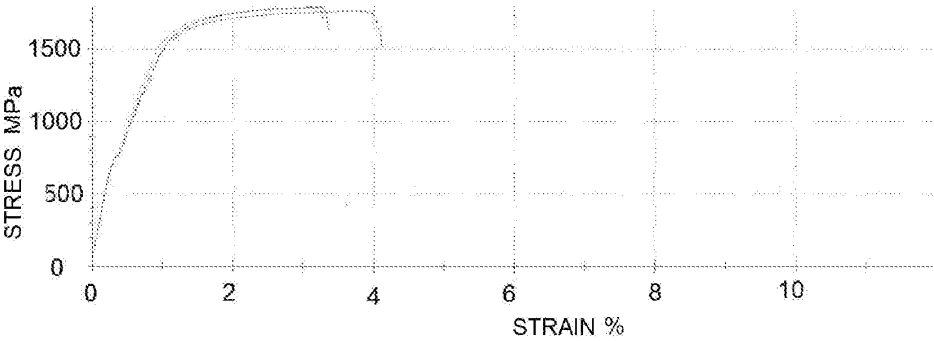


FIG.9a

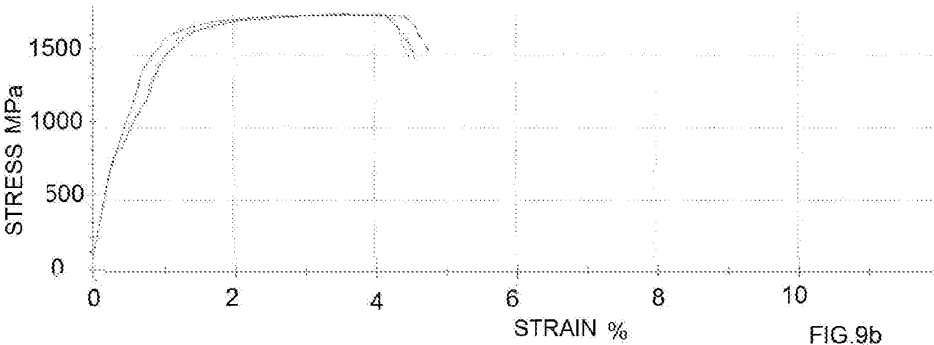


FIG.9b

Mechanical Properties		U.M.	Results Specimen 1	Results Specimen 2	Results Specimen 3
Name			Aluminum/Polymer/Steel	Aluminum/Polymer/Steel	Aluminum/Polymer/Steel
Material			Annex D UNI EN ISO 6892-1:2016 Cod. 03POS001PTTb20	Annex D UNI EN ISO 6892-1:2016 Cod. 03POS001PTTb20	Annex D UNI EN ISO 6892-1:2016 Cod. 03POS001PTTb20
Specimen					
Position		-	-	-	-
Direction			-	-	-
Thickness [a ₀]		mm	3,05	3,05	3,05
Width [b ₀]		mm	20,00	20,00	20,00
Section [S ₀]		mm ²	24,00	24,00	24,00
test lenght [L ₀]		mm	80	80	80
Yield [Rp _{0,2}]		MPa	869,8	881,4	1071,7
Max Load		N	42747	42633	42752
Tensile Strenght Rm		MPa	1781,1	1776,4	1781,3
Elongation percentage after Break		%	4,1	4,1	4,3

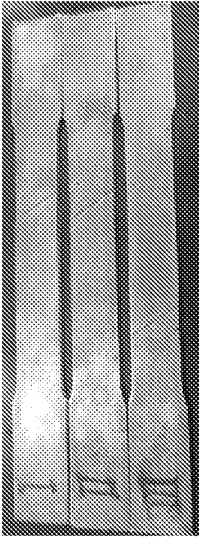


FIG.10a

Mechanical Properties		U.M.	Results	Results	Results
Name			Specimen 1	Specimen 2	Specimen 3
Material			Aluminum/Polymer/Steel	Aluminum/Polymer/Steel	Aluminum/Polymer/Steel
Specimen			Strip	Strip	Strip
Position			-	-	-
Direction			-	-	-
Thickness [a ₀]		mm	3.05	3.05	3.05
Width [b ₀]		mm	20.00	20.00	20.00
Section [S ₀]		mm ²	23.04	23.28	23.40
test lenght		mm	80	80	80
Yield	[R _{p0.2}]	MPa	961.3	864.6	892.6
Max Load		N	4184	41707	41249
Tensile Strenght	Rm	MPa	1787.5	1791.6	1762.8
Elongation percentageo after Break		%	2.8	3.1	3.7

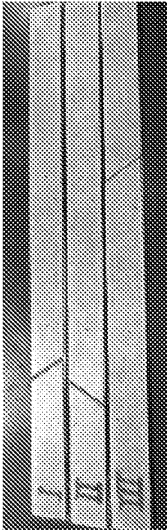


FIG.10b

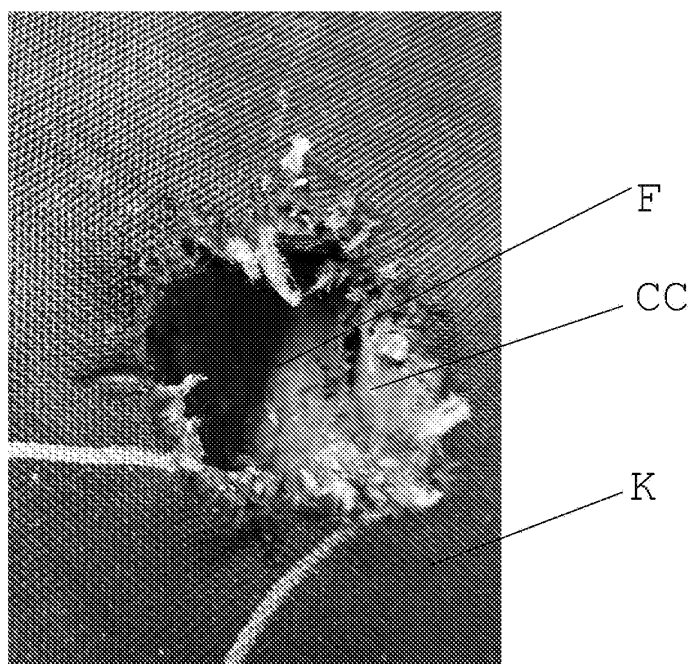


FIG. 11a
Prior Art

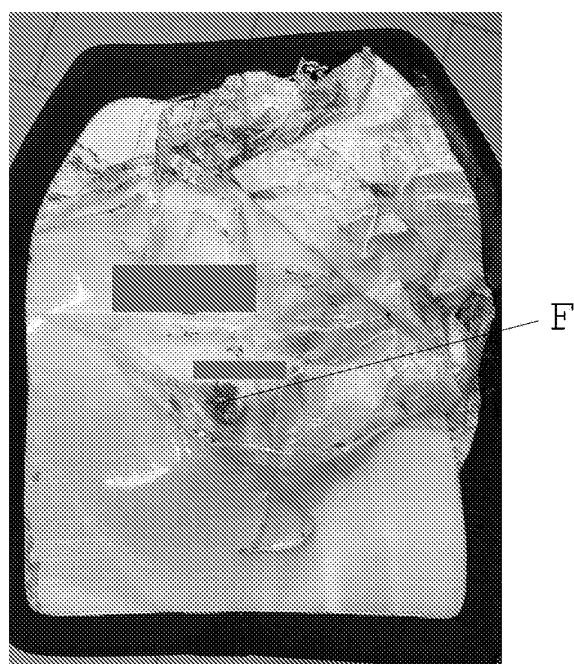


FIG. 11b
Prior Art

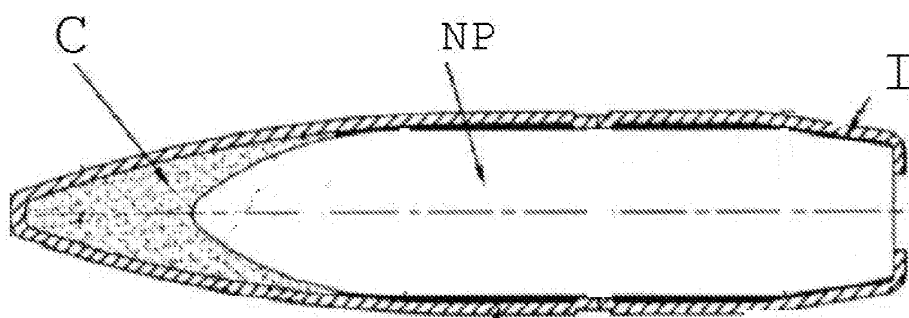


FIG.12



FIG.13