

ABSTRACT

"MIRROR WITH OPTIONAL PROTECTIVE PAINT LAYER, AND/OR METHODS OF MAKING THE SAME"

Certain example embodiments of this invention relate to sputtered aluminum second surface mirrors with permanent protective coatings optionally provided thereto, and/or methods of making the same. A mirror coating supported by a substrate may include, for example, first and second silicon-inclusive layers sandwiching a metallic or substantially metallic layer including aluminum, and an optional layer including Ni and/or Cr in direct contact with the metallic or substantially metallic layer comprising aluminum. A protective paint is disposed directly over and contacting an outermost layer of the mirror coating. The protective paint, once applied and cured, is adapted to survive seven day exposure to an 85 degree C temperature at 85% relative humidity, as well as seven day exposure to a 49 degree C temperature at 100% relative humidity.

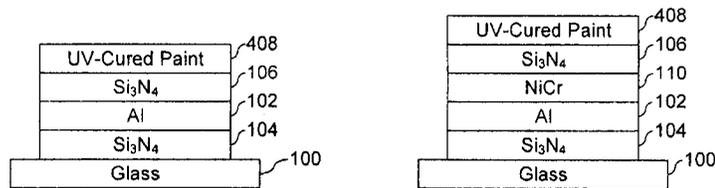


Fig. 4a

Fig. 4b

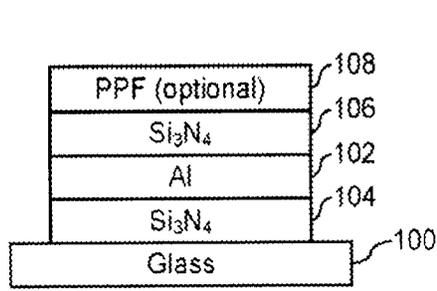


Fig. 1a

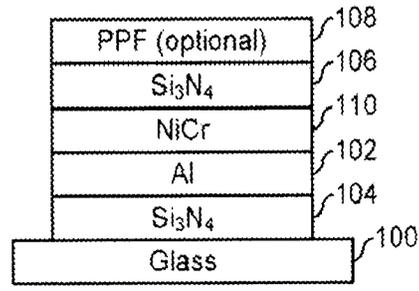


Fig. 1b

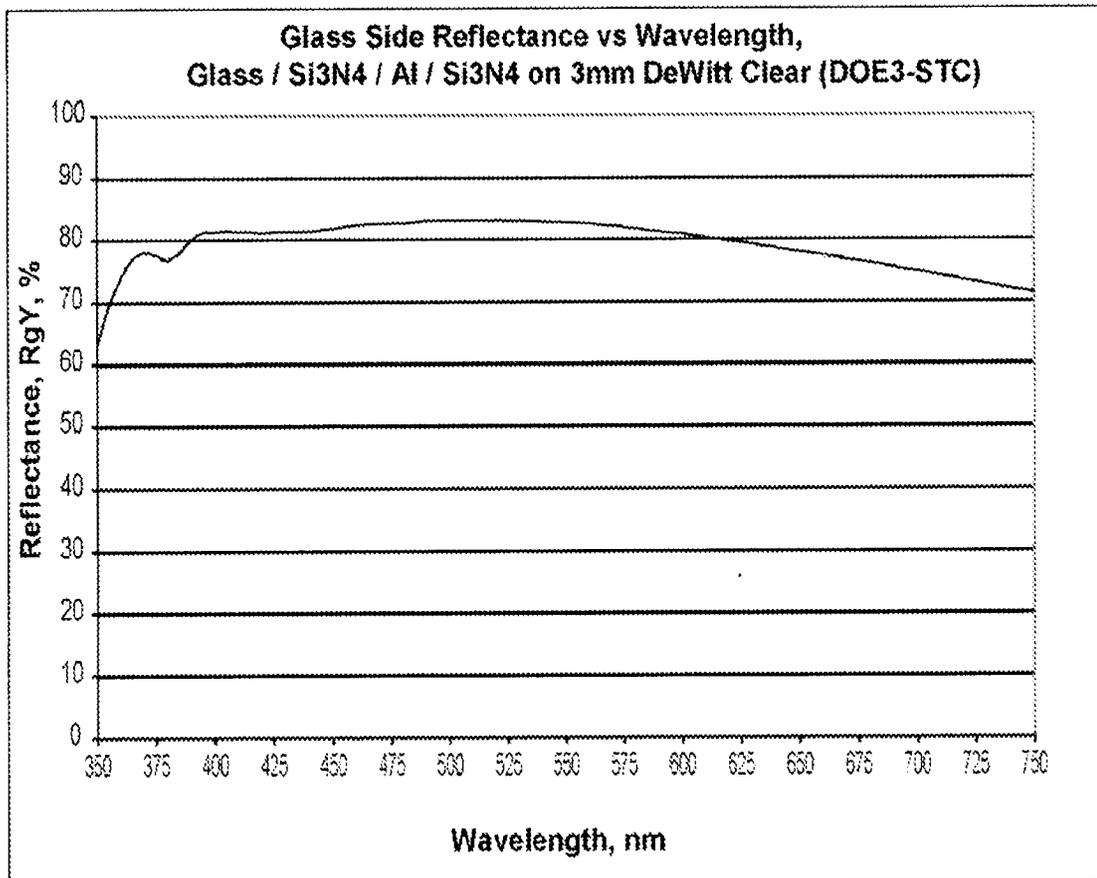


Fig. 2

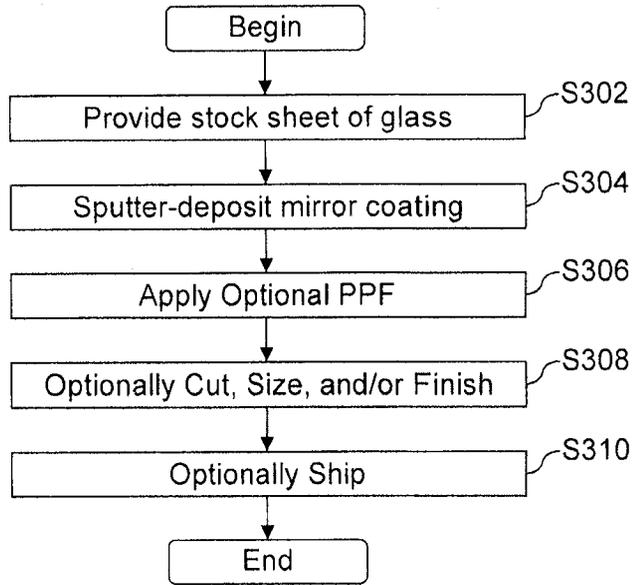


Fig. 3

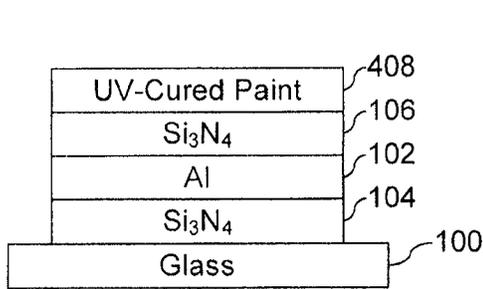


Fig. 4a

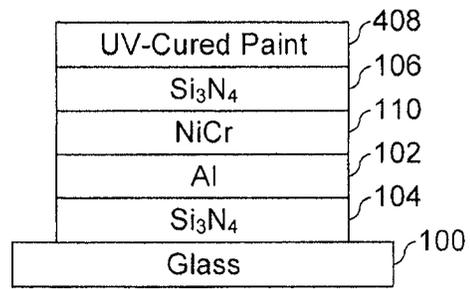


Fig. 4b

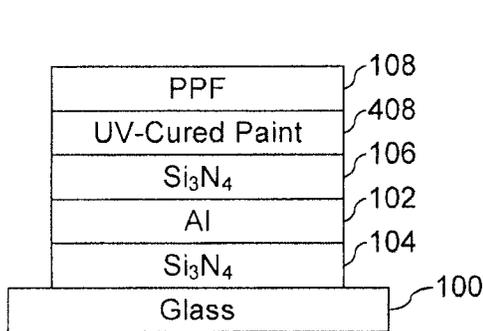


Fig. 5a

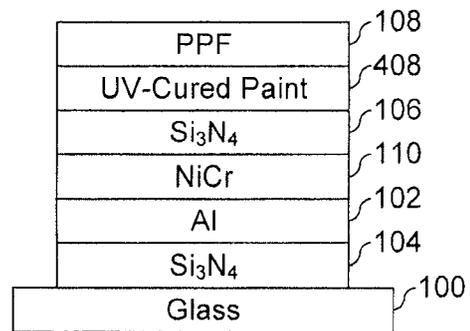


Fig. 5b

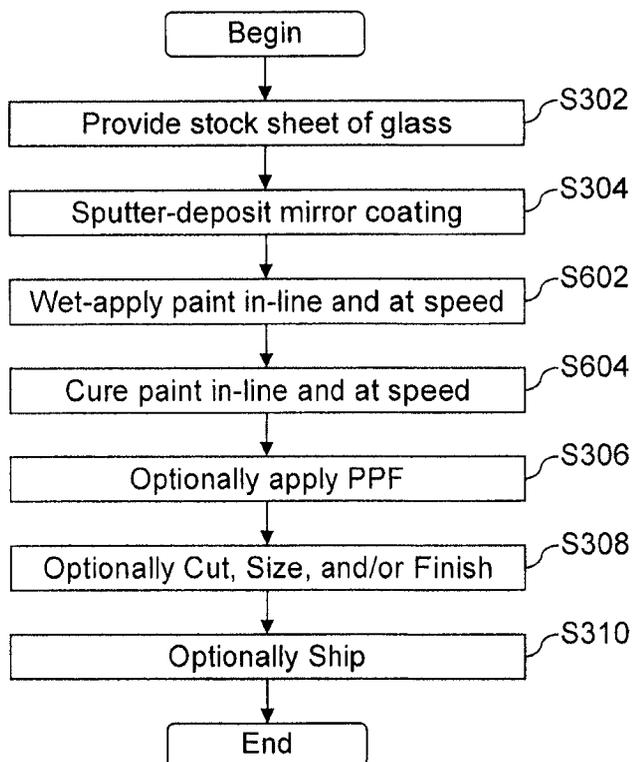


Fig. 6

PPF Material	Product Durability										
	Environmental Performance					Chemical Performance			Mechanical Performance		
	HTHH	Salt Fog	85785	Thermal Cycling	Thermal Dwell	Cutting Oil	Windex	Adh. Rank	Adh. Meas.	Brush	Scratch
Novacel 9084	1	1	1	1	1	1	1	8	10.8	1	1
Novacel 4160	2	3	1	1	4	1	1	6	15.3	1	1
Novacel 9840	3	2	4	8	5	1	1	1	53.4	1	1
B+K 90K	4	5	1	5	1	1	7	2	33.3	1	1
B+K 50110	8	8	5	6	1	1	1	4	26.0	1	1
Nitto 4058-HF	6	6	6	7	7	1	1	5	22.2	1	1
Novacel 4333	5	7	7	4	8	8	8	7	11.7	1	1
Nitto 4088-H	7	4	8	1	6	1	1	3	27.5	1	1
Novacel 4483											

Fig. 7