

Scratch-resistance Improver

NOF[®]-ALLOY KA147

1 About NOFALLOY[®] KA147

NOFALLOY[®] KA147 is one of the scratch resistance improvers developed by NOF's graft technology expertise and experience and can be used for Polypropylene(PP) and PC/ABS compound.

2 Application of NOFALLOY[®] KA147

NOFALLOY[®] KA147 is suitable for automotive interior materials (Instrumental panels, Shift knobs, and Pillars) to improve the scratch resistance.

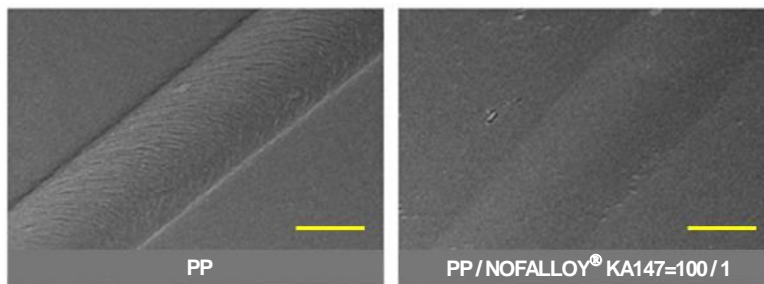


Fig.1 SEM images of PP surface after Scratch test(scale bar: 100μm)

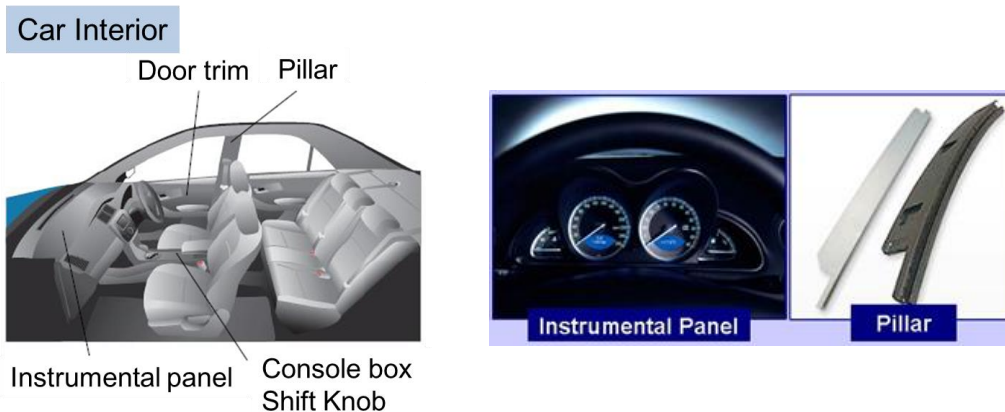


Fig. 2 Examples of the application of NOFALLOY[®]KA147

3 Performances of NOFALLOY[®] KA147

NOFALLOY[®] KA147 can present the following performances for PP or PC/ABS compound.

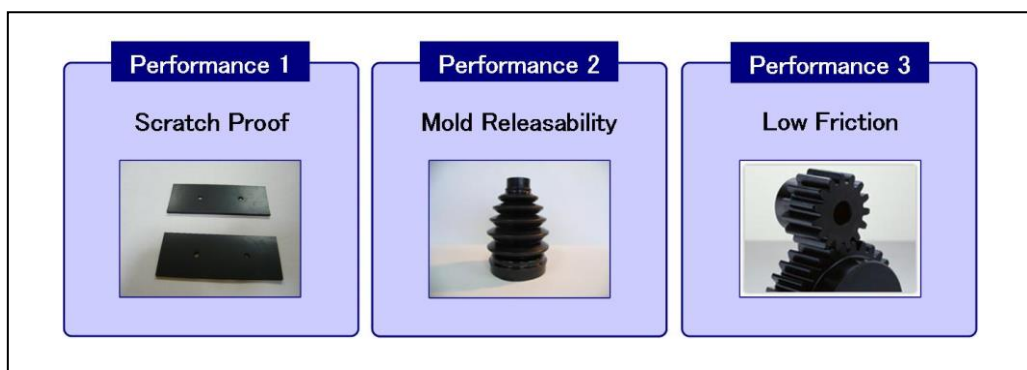


Fig. 3 Three Advantages of NOFALLOY[®]KA147

4 Improvement of scratch resistance of PP and PC/ABS by NOFALLOY® KA147

Sample		Scratch Test ¹⁾		Physical Properties		VOC
PP %	NOFALLOY®KA147 %	Initial (N)	120°Cx1000h (Scratch proof value)	Strength at break (MPa)	Flexural modulus (GPa)	Fogging test (ppm)
100	0	4	2.5	20.6	1.9	0
100	1	6.4	6.0	20.3	1.9	0
100	3	9.2	7.4	19.8	1.8	0

Sample		Wear resistance ²⁾			Scratch Test ¹⁾	Physical Properties		Izod impact kJ/m2
PC/ABS %	NOFALLOY®KA147 %	Initial	After tested	△Gross (%)	Initial (N)	Strength at break (MPa)	Flexural modulus (GPa)	
100	0	99	70	71	2.5	49	2.2	n.b. ³⁾
100	1	96	83	86	13.6	47	2.3	n.b.
100	3	96	90	94	18.3	46	2.1	n.b.

1)Scratch test : ISO 19252(ASTM D7027-05)

2)Wear resistance test : Frictional wear instrument (Mfd. by Yasuda Corp.)

3)n.b. : no break

5 Contacts

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NOFALLOY is a registered trademark of NOF CORPORATION in Japan.

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