

HUSHLOY®: Anti-Squeak Material (low emission) - 1

■ Material Design Concept

Dramatically reduce squeaky noise from plastic joints, thus eliminates the needs of felts or greases applied to those parts.

Since the polymer itself has the effect to minimize squeaky noise, so unlike grease or additives, the effect can last virtually forever.

■ Various applications for Automotive interior



Console / GPS



Switches



Air Conditioner Vents

■ Characteristics

<Excellent Anti Squeak Effect >

Demonstrates excellent anti squeak performance against variety of types of materials such as PC, ABS, PMMA, even with **HUSHLOY®** itself.

<Lasting Performance>

Even after experiencing high-temperature conditions, which is expected in automotive applications, squeak-reducing performance remains unchanged. Unlike grease or felt, the performance will not diminish over time.

■ Lineup

Provides various grades mainly for **Automotive interior** applications.

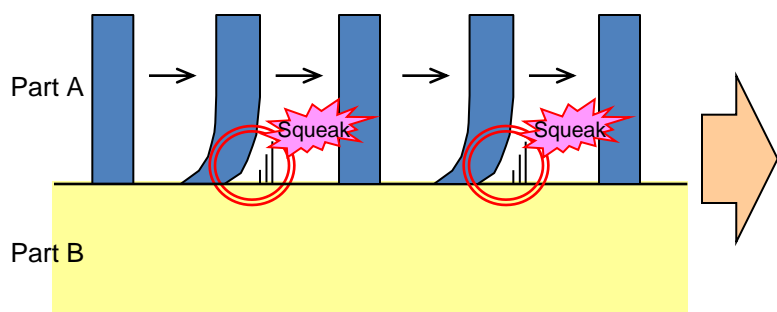
ABS	Standard, Heat Resistant	HS110A
	Standard, Heat Resistant	HS120A
	Low Gloss	HS310S
PC+ABS	High Impact	HS200
	High Heat Resistant	HS210
	Heat Resistant, High Impact	HS220
	Lower VOC Emission	HS222
	High Heat Resistant, Lower VOC Emission	HS223

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■ The mechanism of the squeak noise and the design of our materials

Plastics in contact tend to cause the stick-slip phenomenon when moving with each other, and the frictional vibration then vibrates the air around...

This is how plastic joints make squeaky noise.



HUSHLLOY® contains newly-developed **special polymer**, which significantly reduce the stick-slip tendency, thus the risk of squeaky noise will be minimized.

■ Typical properties of HUSHLLOY® Anti-Squeak material

HUSHLLOY		HS110A	HS120A	HS310S	HS200	HS210	HS220	HS222	HS223
Classification		ABS			PC + ABS				
		Standard	Standard	Low Gloss	High Impact	Heat Resistant	Heat Resistant High Impact	Lower Emission	Heat Resistant Lower Emission
Tensile Strength (MPa)	ISO527	44	45	45	52	51	61	58	56
Flexural Strength (MPa)	ISO178	72	72	70	77	67	87	93	91
Flexural Modulus (MPa)	ISO178	2,360	2,340	2,230	2,210	1,960	2,380	2,400	2,300
Charpy Impact Strength (kJ/m ²)	ISO179	16	15	8	74	45	74	64	57
Rockwell Hardness	ISO2039	R112	R112	R108	R112	R105	R116	R117	R116
Melt Mass Flow Rate (g/10min.)	ISO1133	26 240°C,10kg	26 240°C,10kg	9 240°C,10kg	42 240°C,10kg	19 240°C,10kg	18 240°C,10kg	28 240°C,10kg	27 240°C,10kg
Temp. of Deflection (1.8MPa, °C)	ISO75	94	93	98	96	102	105	105	109
Vicat Softening Temperature (5kg, °C)	ISO306	113	112	127	112	127	126	120	128
Density	ISO1183	1.06	1.06	1.06	1.10	1.13	1.13	1.13	1.14
Mold Shrinkage	ISO294-4	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7
TVOC(μg/g)	VDA278	13	12	29	7	19	37 (PV3341)	≤ 30 (PV3341) (Estimation)	≤ 30 (PV3341) (Estimation)
Typical molding condition	Drying temperature	85~95°C				100~110°C			
	Drying time	2~5Hrs				2~5Hrs			
	Cylinder temperature	220~270°C				220~270°C			
	Mold temperature	40~80°C				50~100°C			

*Remarks

- Each numerical value shown in this sheet is actual value based on the specified testing method.
- The data and descriptions may be revised without notice based on new information.
- The user of the material is responsible solely for the final determination of safety and suitability
- HUSHLLOY HS220, HS222 and HS223 data is based on laboratory basis.