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NAR H190 PROTECTION FILM

NAR H190 Technical Data Sheet

NAR H190 offers breakthrough technology for paint protection applications utilizing an advanced, self -healing, solvent resistant top-coat formulation allowing for easy installation as well as increased longevity. The product is available in 60" widths.NAR H190 product outdoor Durability could be 5 years.

1. Product Construction.

Silicone Protective Film
Hard Coating
TPU film
PSA
PET Liner

2. Appearance Performance. (Visial Inspection)

Film Fitting Bubble	Visual Invisibility	
Film Fitting Stain	Visual Invisibility	
Crystal&Bump point	0.1-0.6mm	Uncountable
	0.7-2.9mm	Maximum 20
	⩾3.0mm	Allow 1
Cotting Mat	Visual Invisibility	
Adhesive Surface line	Visual Invisibility	

3. Physical Perfomance .(Lab Test)

Items	NARPPF/H190	Test
Gloss Rate（60°）	Minimum 90（%）	GB 8807
Weight（Final Product）	355~395（g/m2）	GB/T 4669
Weight（Glue）	25~30（g/m2）	
Thickness（Silicon Protection Film）	45~55（um）	GB/T 7125
Thickness（TPU&HC）	150~180（um）	
Thickness（TPU&HC&Adhesive）	165~195（um）	
Thickness（PET Liner）	70~80（um）	
Elongation Rate at Break (Hard Coating/MD)	90~110（%）	GB/T 1040.1

Dimensional Stability（MD）	≤0.5（mm）	FTM 14
Dimensional Stability（CD）	≤0.4（mm）	
Peel Adhetion	≤0.35（N/25mm）	GB/T 2792
Initial Adhesive	≥6（N/25mm）	FTM 9
24h，180°Peel	≥15（N/25mm）	GB/T 2792

*Testing Method Direction:

1.The elongation at break of the HC protective film shall be as specified in GB/T 1040.1 Determination of Tensile Properties of Plastics, Part 1 General, and the elongation at break of the finished product when the HC coating is broken during the tensile testing

2. Storage of aging peeling force means that the sample is cured at 65 ° C for 72 hours, and the peeling force test is carried out according to GB/T 2792;

3. Application of aging peeling force means that the sample is cured after being cured at 65 ° C for 72 hours, and then cooled to a natural temperature for 180 ° peeling force testing.

4. Characteristic.

Scratch Repairment	Heat repairable	(0.1mm) Copper brush & drying gun
Water Contact Angle	≥100°	DL/T864
Acid and Alkali Resistance	No visible visible coating	Experimental Method
Yellowing Resistance	≤2	QUV Method
Anti-stain	No visible visible stain	Rainyl Method

*Testing Method Direction:

1. About Scratch Repairment ,use copper wire brush with a thickness of 0.1mm or less. After the coating surface is brushed 10 times in a circle, after heating with a baking gun or 100 °C boiling water, the visual inspection of the micro-scratch disappears.

2. About Acid and Alkali Resistance, 10% solubility hydrochloric acid, 0.1mol/L sodium hydroxide solution, after being applied to the surface of the sample for 24h, the appearance of the sample is free of visible visible bubbles, cracks and other coating defects

3.About Anti-stain, use the equipment with UV radiation, heating and spraying to destroy the sample. The parameter setting refers to the corresponding regulations of GB/T 16422.2.

5.Storage Condition.

Tempreture	15~25（℃）
Humidity	40~60（%）

Remarks: NAR PPF need to be stored in their original packing and with the original protection materials.. In order to avoid loss of quality, After the package is removed, the remaining parts must be removed the silica protective film in time, or else it is possible to cause arching and fogging during the surface.

6.Application Condition.

Tempreture	15~25（℃）
Humidity	40~80（%）
Cleanness degree	Clean, no visible dust

Remarks:
1. All PPF paint protection film products shall be cut and engraved in the corresponding environment during the use process to avoid the influence of temperature and static electricity on the product appearance and performance.
2. Before the construction, the cleaning and pretreatment of the automobile paint surface must be done strictly to avoid the abnormal quality of the last issue caused by the residual particles and oil stains on the paint surface;
3. Within one week of construction, the car washing shall be avoided to avoid the continuous drenching of rain water, ensure that the adhesive and paint surface are fully wetted, and give full play to the best adhesion effect.

7.warranty Condtions.

Warranty Periods	5years
Warranty contents	Cracking of base material, peeling off of coating and bubbling of rubber layer

Remarks
1. All NAR PPF paint protection film products shall meet the specified storage conditions and the requirements of standard construction procedures;
2. All items within the warranty scope of PPF paint protective film products must strictly comply with the product use and maintenance specifications. For details, please refer to the identification card and corresponding official statement provided with the goods in the product package.