

## HAMMERHEAD CLEAR

Clear PPF

## TECHNICAL SPECIFICATIONS

| TEST ITEM                |                            | TEST METHOD                                                                                                                                         | UNIT                | STANDARD VALUE        | TEST VALUE  |
|--------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------|-------------|
| Film Thickness           | Aggregate Thickness        | GB/T 6672                                                                                                                                           | $\mu\text{m}$       | 322 $\pm$ 10          | 329         |
|                          | Thickness of Working Layer |                                                                                                                                                     |                     | 197 $\pm$ 10          | 199         |
| Width                    |                            | GB/T 6673                                                                                                                                           | mm                  | 1522 $\pm$ 2          | 1524        |
| Length                   |                            | Meter Counter                                                                                                                                       | m/roll              | 15                    | 15          |
| Elastic Modulus          |                            | ASTM D-882                                                                                                                                          | Kgf/cm <sup>2</sup> | E $\leq$ 200          | 106.08      |
| Tensile Strength         |                            | GB/T 17657-2013                                                                                                                                     | MPa                 | $\geq$ 20             | 21          |
| Elongation at Break      | Repair Layer               | ASTM D-882                                                                                                                                          | %                   | $\geq$ 80             | 100         |
|                          | Finished Product           |                                                                                                                                                     |                     | $\geq$ 280            | 343.5       |
| Adhesion Performance     | Initial Peel Adhesion      | FINAT3                                                                                                                                              | N/in                | 20 $\leq$ F $\leq$ 25 | 22.5        |
|                          | Loop Tack                  |                                                                                                                                                     |                     | 15 $\leq$ F $\leq$ 20 | 15.1        |
|                          | Peel Adhesion              |                                                                                                                                                     |                     | 25 $\leq$ F $\leq$ 35 | 27.8        |
| Puncture Resistance      | Puncture Force             | GB/T 10004                                                                                                                                          | N                   | $\geq$ 35             | 51.8        |
|                          | Puncture Strength          |                                                                                                                                                     | MPa                 | $\geq$ 5              | 8.9         |
| Optical Performance      | Visible Light Transmission | GB/T 2410                                                                                                                                           | %                   | $\geq$ 85             | 89          |
|                          | UV Rejection               | GB/T 2680                                                                                                                                           | %                   | $\geq$ 90             | 95.5        |
|                          | Haze                       | ASTM D1003                                                                                                                                          | %                   | $\leq$ 2              | 0.22        |
|                          | Gloss                      | 60° Gloss Tester                                                                                                                                    | GU                  | $\geq$ 90             | 93.2        |
|                          | Hydrophobic                | Hydrophobic Test Machine                                                                                                                            | °                   | $\geq$ 90             | 98          |
| Self-Healing Performance |                            | Tested with 10 strokes of fine copper brush at a load of 200 g/cm <sup>2</sup> ; surface self-healed when exposed to hot water (~70 °C) or hot air. | S                   | $\leq$ 5              | Pass        |
| Marker Resistance        |                            | Oil-based marker MG-2110, dried ink, wiped with alcohol                                                                                             | /                   | Residue Level 1 to 3  | 1           |
| Chemical Resistance      |                            | Application of standard carburetor cleaning agent to the film surface for 1 minute.                                                                 | /                   | No swelling           | No swelling |

\*The above data is used as a reference for material selection, but does not constitute a guarantee.

\*The company has the right to modify the relevant technical data without prior notice.

If you have any inquiry, feel free to contact us.

