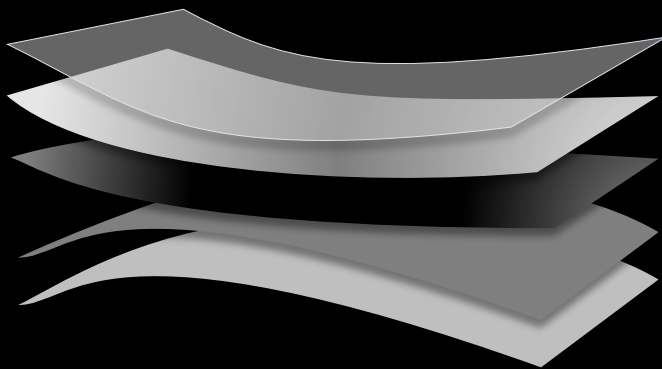


# KEEPGARD BLACK

10 YEARS WARRANTY



- PET Protection Film (2.2 mil)
- Hard Coating (0.4 mil)
- Black TPU (6.0 mil)
- Adhesive (1.2 mil)
- Release Liner (3.0 mil)

| Properties          | Value  | Method  |
|---------------------|--|---|
| Thickness           | 7.6mil ( $\pm 0.2$ mil)                      | Thickness Gauge   |
| Glossy60°           | Above 90 GU                                  | Glossmeter (KS M ISO2813 : 2015)  |
| Transmittance (%)   | Above 90                                     | ASTM D1003  |
| Contact Angle       | Above 100                                    | ASTM D5946  |
| Self-Healing        | Within 10 min                                | RT, Copper Brush Scratching   |
| Solvent resistance  | No Detrimental Effect                        | IPA, Motor oil, Acetone<br>After Dropping 24hrs later                               |
| Tensile Strength    | 27 $\pm$ 3Mpa                                | ASTM D882-18  |
| Elongation at break | 300% $\pm$ 10                                | ASTM D882-18  |
| Adhesive            | 1,600gf/in $\pm$ 100<br>1,900gf/in $\pm$ 100 | Initial, State Adhesion JIS K 6854-2  |
| Adhesion transfer   | None   |   |
| Anti-Yellowing      | $\Delta E$ 0.4~0.8                           | QUV Tester, UVA-340, Irradiance 0.76W/m <sup>2</sup><br>Xenon Arc 12,000W /1,000hrs |