

3M™ Visible-light Reflective PGU (VRP)

Product Description

3M™ Visible-light Reflective PGU (VRP) is a reflective polarizing film used in Head-up Display (HUD) applications to provide high brightness for the projected image while reducing undesired visible light sources projected back to the Picture Generating Unit (PGU) through the HUD assembly. It is a multilayer polyester-based film with 3M's optically clear adhesive.

Construction Description

Multilayer structure with optically clear adhesive, adhesive release liner, and multilayer film protective liner. Cross-section representation with protective masking (not to scale).

Performance Metrics	
Thickness	73um ± 5um
Transmission in Pass	80% Minimum
Reflectivity in Block	90% Minimum
Haze	1.5% Maximum



Removable Protective Film

Multilayer Optical Film

Optically Clear Adhesive

Adhesive Release Liner

Environmental Metrics	
Heat resistance	105°C x 1,000 hours
Cold resistance	-40°C x 1,000 hours
Humidity resistance	65°C, 95%RH x 1,000 hours
Thermal shock	(-40°C x 1hr / 95°C x 1hr) x 100 cycles

Testing Description Results	
Appearance	No significant appearance changes by naked eye observation
Transmittance	Equal or greater than 80% of initial value
Reflectivity	Equal or greater than 80% of initial value
Change of Color	Difference from initial value, ΔE^* , is equal or less than 2.0

Technical Information

The technical information, recommendations and other statements contained in this document are based on tests or experience 3M believes reliable, but the accuracy or completeness of such information is not guaranteed.

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3M Display Materials & Systems Division

3M Center, Building 235-1E-54
St. Paul, MN 55144-1000 U.S.A.

Phone 1-800-3M HELPS

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