

**iQUE™**  
BY V-KOOL

**73FG**

**THE EPITOMY OF SPECTRAL-SELECTIVITY.**

The spectral selectivity in **V-KOOL®** window coatings is a significant breakthrough in Surface & Particle Science and the window film industry.

Winner of the coveted Technology Of The Year Award in 1989, **V-KOOL®** coatings is the world's first and only spectrally-selective window film that offers new possibilities to architects, interior designers, auto manufacturers, car and home owners.

The **V-KOOL®** range of films (75, 70, 40) have unique performance that is unrivalled. iQUE 73FG / V-KOOL 70 provides a superior mix of high visible light transmission at 70% as well as high infra-red and ultra-violet rejection at 94% and 99% respectively.

Already a well received solution for many architects and car owners around the world, iQUE 73FG epitomises the qualities of a true spectrally-selective coating. **V-KOOL®** film is currently used in auto applications ranging from retrofit to OEM on Audi, Renault, BMW, Mercedes, Volvo, Volkswagen and Opel as well as retrofit OEM for Nissan and Jeep.

Architectural projects commonly employing iQUE 73FG glass enhancing qualities range from retail outlets, pent-houses, atria, to air control towers. iQUE 73FG is the clear choice when it comes to projects with high visibility and heat rejection requirements.

Spectrally Selective 73FG	
Colour	Neutral
Visible Light Transmission	69%
Visible Light Reflectance (Glass)	9%
Visible Light Reflectance (Film)	10%
Ultra-violet Rejection	99%
Total Solar Energy Rejection	57%
Luminous Efficacy	1.39
Solar Heat Gain Coefficient	0.43
Shading Coefficient	0.50
Emissivity	0.54
U-Value (btu/hr.ft <sup>2</sup> .°F)	0.88

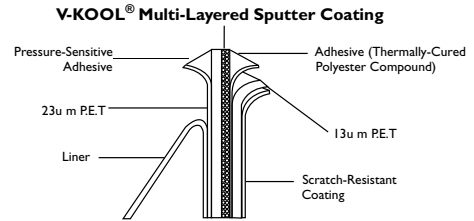
\* Film tested on standard 3mm clear annealed glass and specifications are subjected to variations under intervening conditions.

**1. Purpose**  
This product specification provide the requirements for the iQUE 73FG applied solar control window film.

**2. Related Documents**  
ASTM Test Methods and Standards.

**3. Product Specifications**

**3.1 Construction**  
The illustration below shows the standard construction of the **V-KOOL®** applied film.



**3.2 Substrate**  
a. Sputtered PET - Typically 0.92g clear biaxially oriented PET.  
b. Sputtered PET - A 0.48g clear biaxially oriented PET.

**3.3 Sputtered Coating**  
Metallized on the non-slip coated side with an metal/metal-oxide coating stacks designed to reduce solar heat transmission and to meet exacting performance standards.

**3.4 Lamination Adhesive**  
Typically a PET type.

**3.5 Mounting Adhesive**  
1.5 micron - Acrylic pressure sensitive (PS)

**3.6 Hard Coat**<sup>☆</sup>  
a. Ultraviolet cross linked acrylic clear coating.  
b. Abrasion resistance must meet performance standards:

**3.7 Release Liner**  
Clear silicon coated PET (<2% haze) liner placed over the mounting adhesive.

**3.8 Physical Defects**  
Physical defects, such as scratches, spots, coating inclusions, wire lines, gravure lines, coating voids and creases which are visible under normal lighting conditions in final laminated product are not acceptable.

**3.9 Roll Configuration**  
a. Length: 100' rolls or as specified on purchase order (PO)  
b. Width: 60" / 72"

**3.10 Nominal Physical Properties**  
a. Tensile Strength : 18 Kg/mm<sup>2</sup> (26Kpsi) - (TD)  
18 Kg/mm<sup>2</sup> (26Kpsi) - (MD)  
b. Melting Point : 254°C  
c. Expansion Coefficient : 1.7 x 10<sup>-5</sup> mm/mm/°C

**3.11 Typical Optical Performance**  
Refer to the table on the left side

<sup>☆</sup> Abrasion Resistance @ 100 cycles and under 500g weight <6% after abrasion ASTM D-1044