

Technical Data Sheet

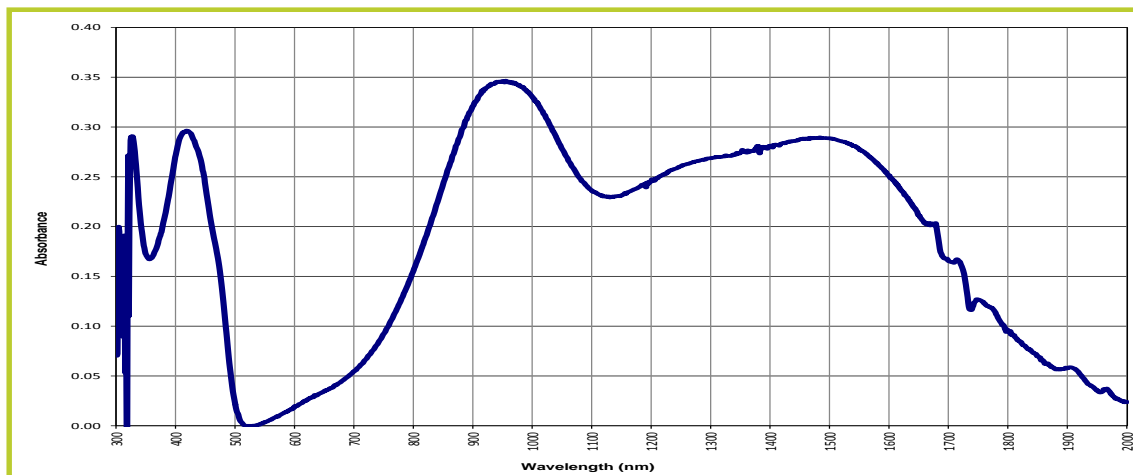
Product Code: **IR Dye 1111**

Product Description: **953nm NIR Dye**

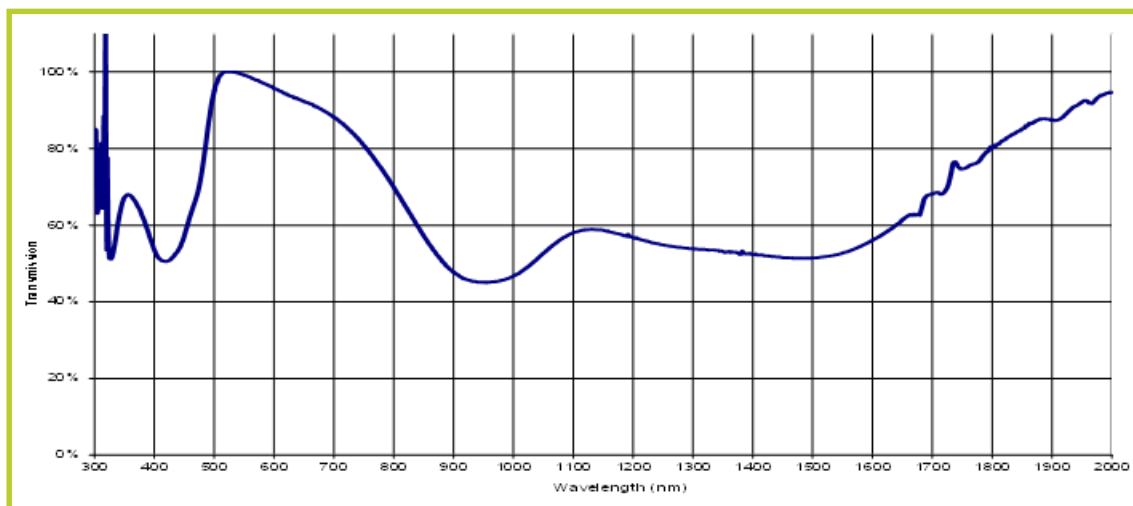
Properties

Appearance: **green free flowing powder**
Melting Point: **145°C – 146°C**
Lambda Max: **953 nm**
Absorptivity: **22 (L g⁻¹ cm⁻¹)**
Solubility (grams/100 grams of solvent):
MEK = 42, Toluene = 1.24, Cyclohexanone = 15.2, Et Acetate = 3.41, THF = 5.84

Absorption Curve



Transmission Curve



IR Dye 1111 can be molded into high melt polycarbonate, used in various coating, and cast into PMMA sheets.

New Developments- The best process ability in high temperature applications

Polycarbonate Molding Suggestions: These infrared dyes are very sensitive to heat, and can be easily burned off and deactivated if certain precautions are not take. As these dyes are quite expensive, burning them can be a costly mistake. We suggest you follow these precautions:

Use Hi-Flow Polycarbonate – For initial evaluations, we recommend the use of 30 MFR PC or higher.

Molding Temperature – Try to keep the molding temperature below 520°F (270C).

Residence Time – The residence time in the mold must be kept to an absolute minimum.

Dry Polycarbonate – The PC must be dry. Moisture will deactivate the dye.



Adam Gates & Company