

# Technical Data Sheet

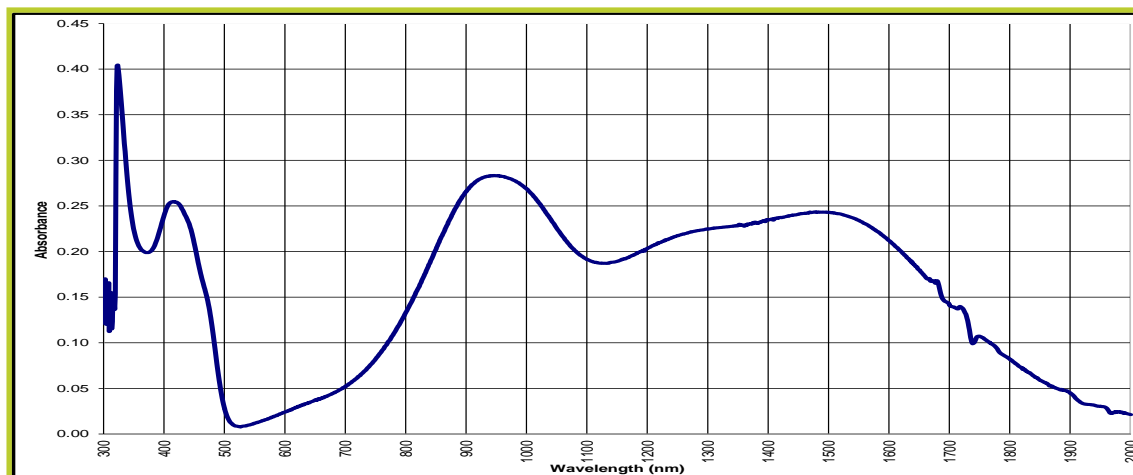
Product Code: **IR Dye 1114**

Product Description: **956nm NIR Dye**

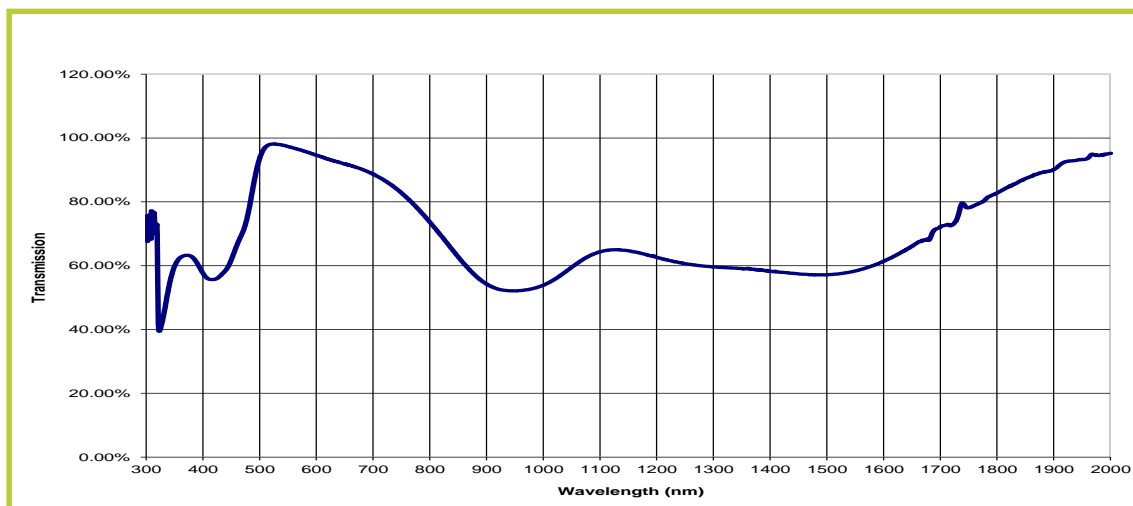
## Properties

Appearance: **green free flowing powder**  
Melting Point: **144°C – 145°C**  
Lambda Max: **956 nm**  
Absorptivity: **20 (L g<sup>-1</sup> cm<sup>-1</sup>)**  
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



Due to its' excellent balance of properties, **IR Dye 1114** finds use in a broad range of applications where the absorption of Infrared light, and the transmission of Visible light is important:

**Thermal Stability**- can be used in inks and coatings, and polycarbonate

**Acrylic Infrared Filters** – IR Dye 1114 has excellent solubility in PMMA and provided an excellent broad band absorption of infrared energy. This dye has excellent stability to free radicals, and can be used in thick (1/4" to 1/2") sections.

**Polycarbonate Eyewear** – IR Dye 1114 can be processed into polycarbonate. Care must be taken using the highest Melt Flow Resin. Lubricants such as magnesium stearate should be used to improve flow rate at low temperatures.

  
**Adam Gates & Company, LLC**  
Fine Chemicals and Near Infrared Dyes