

Technical Data Sheet

Product Code: **IR Dye 1120**

Product Description: 1073nm NIR Dye

Properties

Appearance: **brown free flowing powder**

Melting Point: **219°C – 220°C**

Lambda Max: **1073 nm**

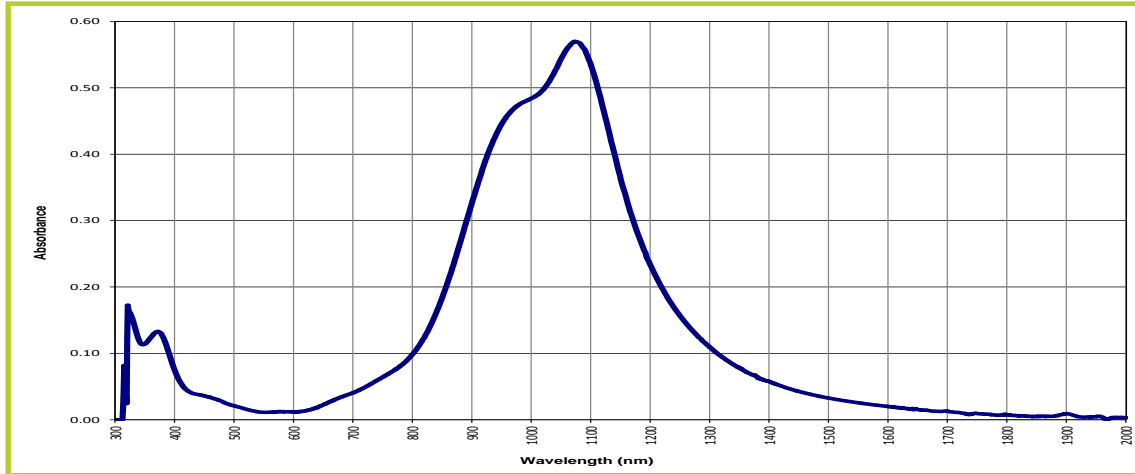
Absorptivity: **69 (L g⁻¹ cm⁻¹)**

Solubility (grams/100 grams of solvent):

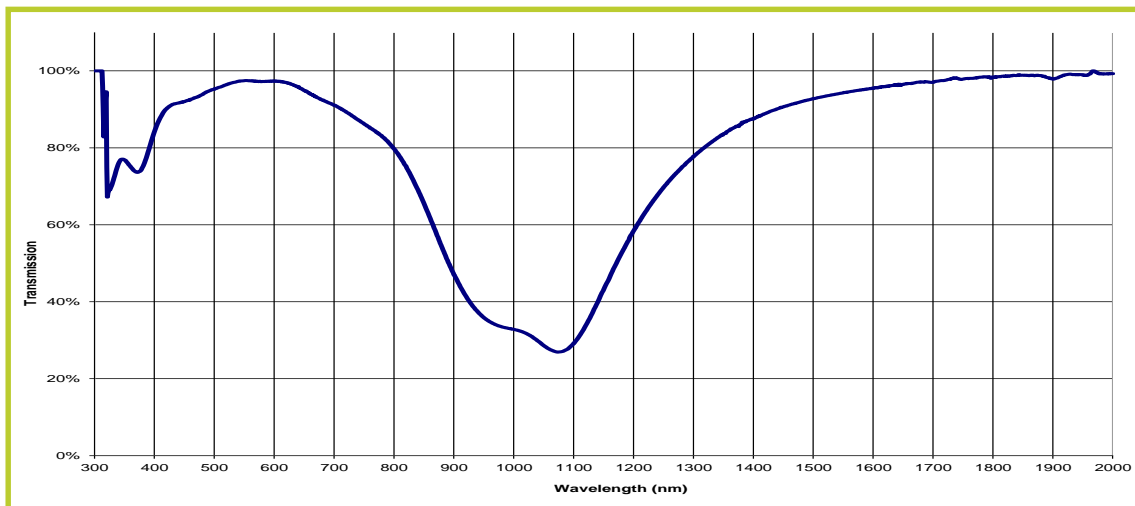
MEK = 7.3, Toluene = 0.2, THF = 6.4,

Cyclohexanone = 6.4

Absorption Curve



Transmission Curve



Due to its' excellent balance of properties, **IR Dye 1120** finds use in a broad range of applications where the absorption of Infrared light, and the transmission of Visible light is important:

Due to its' excellent **thermal stability**, this dye provides excellent protection from the Nd:YAG laser at 1064nm, and can be molded into large parts such as polycarbonate face shields. The excellent thermal stability has allowed molders to use lower flow PC thereby providing their customers with a higher impact strength product.

Laser Eye Protection – Due to its' high absorptivity at 1064 nm, and high transmission of visible light, IR Dye 1120 is the dye of choice for small medical, military and industrial polycarbonate eyewear to protect against the Nd:YAG laser.

Inks and Coatings – Due to its' excellent solubility in a broad range of organic solvents, including methanol, IR Dye 1120 finds use in applications where the absorption of Infrared energy is needed in inks and coatings. These applications range from heat shielding window films to security inks.



Adam Gates & Company