

COATINGS

Basic types and specifications

GENERAL ENVIRONMENTAL SPECIFICATIONS:

Adhesion, abrasion, humidity and thermal cycle requirements per MIL-C-48497, MIL-M-13508.

TYPE	SUBSTRATE	WAVELENGTH, μM	R_{av} , %	T_{av} , %
ANTIREFLECTION COATINGS:				
V-coat	Quartz	0.248	≤ 0.5	≥ 99.0
V-coat	Glass	0.633	≤ 0.25	≥ 99.5
BBAR	Glass	0.4-0.7	≤ 0.5	≥ 98.0
BBAR	Germanium	3-5	≤ 1.0	≥ 98.0
BBAR	Germanium	8-12	≤ 1.0	≥ 96.0
BBAR	Germanium	3-12	≤ 5.0	≥ 90.0
BBAR	ZnSe	8-12	≤ 1.0	≥ 96.0
BBAR	ZnSe	3-12	≤ 5.0	≥ 90.0
BBAR	Silicon	3-5	≤ 1.0	≥ 98.0
NBAR	Germanium	10.6	≤ 0.5	≥ 99.0
NBAR	ZnSe	10.6	≤ 0.5	≥ 99.0
BEAMSPLITTER COATING:				
B/S	CaF ₂	2-8	50+/-10	50+/-10
PROTECTIVE COATINGS:				
Hard Carbon/AR	Germanium	8-12		≥ 93.0
Hard Carbon/AR	Germanium	3-5		≥ 94.0
Hard Carbon/AR	Silicon	3-5		≥ 94.0
Humidity Protection	KBr, NaCl, KCl	0.5-20		≥ 90.0
REFLECTION COATINGS:				
Protected Aluminum		0.4-10.0	≥ 85.0	
Protected Silver		0.4-10.0	≥ 98.0	
Chromium Gold		0.8-10.0	≥ 98.0	

Note:

R_{av} - average reflectance per surface

T_{av} - average transmittance through two surfaces and the substrate