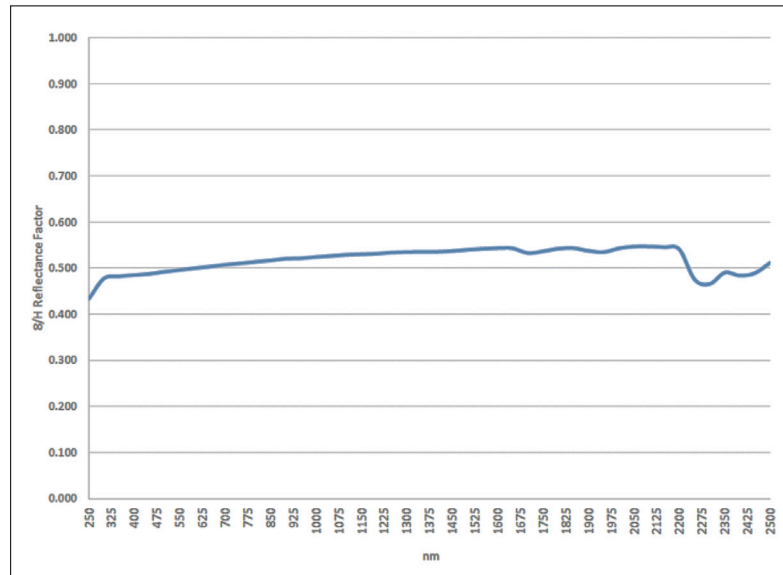


Permafect-50 50% Diffuse Reflectance Coating

Ideal for use where exposure to airborne particles and moisture is a concern



Typical 8/H Spectral Reflectance Factor

Wavelength (nm)	Typical 8/H Reflectance Factor
250	0.433
300	0.478
350	0.482
400	0.485
450	0.488
500	0.492
550	0.496
600	0.500
650	0.503
700	0.507
750	0.510
800	0.514
850	0.517
900	0.521
950	0.521
1000	0.524
1050	0.526
1100	0.529
1150	0.530
1200	0.531
1250	0.534
1300	0.535
1350	0.535
1400	0.535
1450	0.537
1500	0.540
1550	0.542
1600	0.543
1650	0.543
1700	0.533
1750	0.537
1800	0.542
1850	0.543
1900	0.538
1950	0.535
2000	0.543
2050	0.547
2100	0.547
2150	0.545
2200	0.541
2250	0.476
2300	0.466
2350	0.490
2400	0.484
2450	0.489
2500	0.512

Versatile

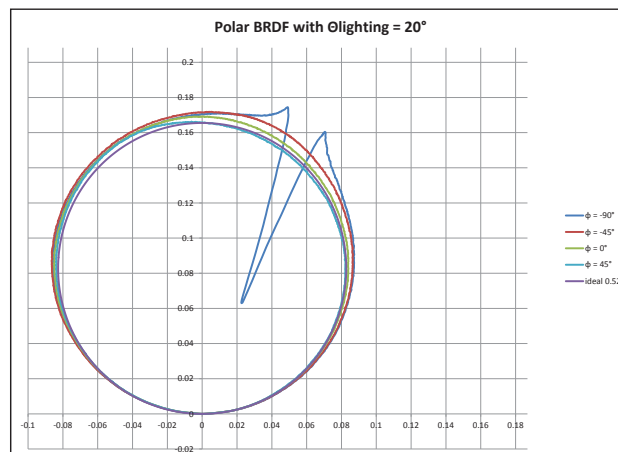
Permafect proprietary near Lambertian white and grey reflectance coatings are durable water insoluble coatings. Permafect-50 is used in applications in the UV-VIS and NIR from 250 nm to 2500 nm and is applied by spraying the coating onto a specially prepared surface. For best results, Permafect-50 should be applied to metal or glass substrates.

BRDF

The Bidirectional Reflectance Distribution Function (BRDF) is defined as the ratio of the radiance of a sample to the irradiance upon that sample, for a given direction of incidence and direction of scatter. Presented are the cosine corrected BRDF with 20° incident beam.

The BRDF data key are:

- θ lighting is the incident beam angle of illumination
- $\Phi = -90^\circ$ is in-plane data collection
- $\Phi = 0^\circ$ is cross-plane data collection
- $\Phi = -45^\circ$ is a plane halfway in-between 0° and -90°
- The backscatter direction in-plane is where the sensor obscures the light source (section with no data)
- This is on the right side of the plot as the incident light angle increases from 0 to 90
- The specular direction is to the left



Permafect-50 BRDF at 20° Incident Beam

Tolerance

Reflectance at 600 nm: 50% +/- 4%
Spectral Flatness from 350 nm to 950 nm: <8%