

# PERMAFLECT - 10 | 10% Durable Diffuse Reflectance Coating

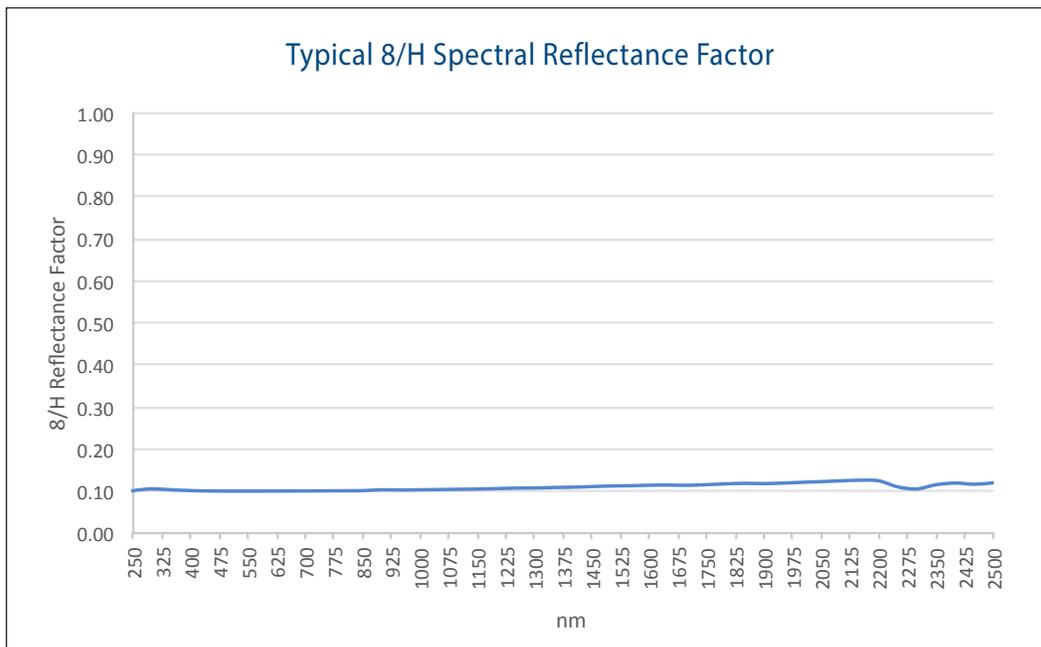


*The only choice when durability matters most*

- Durable
- Diffuse
- Repeatable
- Reproducible
- Highly Lambertian

Durable and Versatile  
Spray-on Coating

Typical 8/H Spectral Reflectance Factor

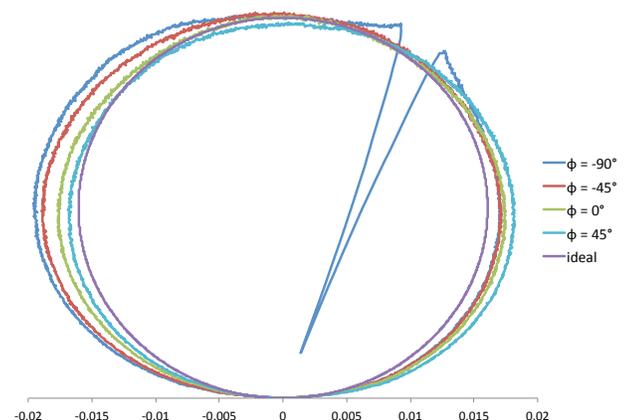


## Bidirectional Reflectance Distribution Function (BRDF)

The BRDF data key are:

- $\theta$  lighting is the incident beam angle of illumination
- $\Phi = 0^\circ$  is cross-plane data collection
- $\Phi = -90^\circ$  is in-plane data collection
- $\Phi = -45^\circ$  is a plane halfway in-between  $0^\circ$  and  $-90^\circ$
- The backscatter direction in-plane is where the sensor obscures the light source (section with no data)

## Permaflect - 10 BRDF at $20^\circ$ Incident Beam



Excellent Diffuse Reflectance



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| Wavelength<br>(nm) | Typical 8/H Reflectance Factor |      |      |      |      |      |
|--------------------|--------------------------------|------|------|------|------|------|
|                    | 5%                             | 10%  | 18%  | 50%  | 80%  | 94%  |
| 250                | 0.05                           | 0.10 | 0.13 | 0.30 | 0.33 | 0.64 |
| 300                | 0.05                           | 0.10 | 0.15 | 0.43 | 0.60 | 0.85 |
| 350                | 0.05                           | 0.10 | 0.16 | 0.46 | 0.72 | 0.91 |
| 400                | 0.05                           | 0.10 | 0.16 | 0.48 | 0.77 | 0.93 |
| 450                | 0.05                           | 0.10 | 0.17 | 0.48 | 0.79 | 0.94 |
| 500                | 0.05                           | 0.10 | 0.17 | 0.49 | 0.79 | 0.94 |
| 550                | 0.05                           | 0.10 | 0.17 | 0.49 | 0.79 | 0.94 |
| 600                | 0.05                           | 0.10 | 0.18 | 0.50 | 0.80 | 0.94 |
| 650                | 0.05                           | 0.10 | 0.18 | 0.50 | 0.80 | 0.93 |
| 700                | 0.04                           | 0.10 | 0.18 | 0.50 | 0.80 | 0.93 |
| 750                | 0.04                           | 0.10 | 0.18 | 0.50 | 0.79 | 0.93 |
| 800                | 0.04                           | 0.10 | 0.18 | 0.51 | 0.79 | 0.93 |
| 850                | 0.04                           | 0.10 | 0.18 | 0.51 | 0.79 | 0.93 |
| 900                | 0.04                           | 0.10 | 0.19 | 0.51 | 0.79 | 0.92 |
| 950                | 0.04                           | 0.10 | 0.19 | 0.51 | 0.79 | 0.92 |
| 1000               | 0.04                           | 0.10 | 0.19 | 0.52 | 0.79 | 0.92 |
| 1050               | 0.04                           | 0.10 | 0.19 | 0.52 | 0.79 | 0.92 |
| 1100               | 0.04                           | 0.10 | 0.19 | 0.52 | 0.79 | 0.92 |
| 1150               | 0.04                           | 0.10 | 0.19 | 0.52 | 0.77 | 0.91 |
| 1200               | 0.04                           | 0.10 | 0.19 | 0.52 | 0.77 | 0.90 |
| 1250               | 0.05                           | 0.10 | 0.20 | 0.53 | 0.78 | 0.91 |
| 1300               | 0.05                           | 0.10 | 0.20 | 0.53 | 0.78 | 0.91 |
| 1350               | 0.05                           | 0.10 | 0.20 | 0.53 | 0.77 | 0.90 |
| 1400               | 0.05                           | 0.10 | 0.20 | 0.52 | 0.74 | 0.88 |
| 1450               | 0.05                           | 0.11 | 0.20 | 0.53 | 0.74 | 0.88 |
| 1500               | 0.05                           | 0.11 | 0.20 | 0.53 | 0.76 | 0.89 |
| 1550               | 0.05                           | 0.11 | 0.20 | 0.54 | 0.77 | 0.90 |
| 1600               | 0.05                           | 0.11 | 0.21 | 0.54 | 0.77 | 0.89 |
| 1650               | 0.05                           | 0.11 | 0.21 | 0.53 | 0.75 | 0.88 |
| 1700               | 0.05                           | 0.11 | 0.20 | 0.50 | 0.62 | 0.82 |
| 1750               | 0.05                           | 0.11 | 0.20 | 0.51 | 0.65 | 0.83 |
| 1800               | 0.05                           | 0.11 | 0.21 | 0.53 | 0.70 | 0.85 |
| 1850               | 0.05                           | 0.11 | 0.21 | 0.53 | 0.72 | 0.86 |
| 1900               | 0.05                           | 0.11 | 0.21 | 0.51 | 0.67 | 0.82 |
| 1950               | 0.05                           | 0.11 | 0.21 | 0.51 | 0.64 | 0.80 |
| 2000               | 0.05                           | 0.12 | 0.21 | 0.53 | 0.68 | 0.83 |
| 2050               | 0.05                           | 0.12 | 0.21 | 0.53 | 0.69 | 0.84 |
| 2100               | 0.05                           | 0.12 | 0.22 | 0.53 | 0.67 | 0.83 |
| 2150               | 0.05                           | 0.12 | 0.21 | 0.51 | 0.62 | 0.81 |
| 2200               | 0.05                           | 0.12 | 0.21 | 0.51 | 0.62 | 0.81 |
| 2250               | 0.05                           | 0.11 | 0.18 | 0.35 | 0.34 | 0.63 |
| 2300               | 0.04                           | 0.10 | 0.17 | 0.33 | 0.31 | 0.60 |
| 2350               | 0.05                           | 0.11 | 0.19 | 0.38 | 0.38 | 0.65 |
| 2400               | 0.04                           | 0.11 | 0.19 | 0.37 | 0.36 | 0.64 |
| 2450               | 0.05                           | 0.11 | 0.19 | 0.37 | 0.37 | 0.65 |
| 2500               | 0.05                           | 0.12 | 0.20 | 0.42 | 0.44 | 0.69 |

