

Top Specs for METAL SUBSTRATE COATINGS

AccuCoatinc.
COATINGS FOR OPTICS

We consider many aspects of your application and needs when designing a coating. Jump-start the quoting process by sharing any specifications you can. Don't worry about the rest – we'll sort out the details together.

- **A substrate drawing, sketch, or photo**
This lets us quickly see what we need to coat, from form factor to curvature and size, as well as any fine features that need to be coated. It allows us to decide tooling, and determine whether a multi-axis chamber needs to be used to guarantee uniformity. Be sure to clearly identify the surface(s) to be coated.
- **Substrate material**
We work regularly with aluminum, copper, stainless steel, nickel-plated, Beryllium, and diamond-turned metals. Whatever your substrate type, there is a good chance we have worked with it.
- **Coating type**
Do you need an aluminum, gold, silver, chrome, bare, protected or enhanced coating?
- **Wavelength & efficiency specs**
Depending on your application, this could be a single wavelength, several individual wavelengths, or a broad-band. We design coatings for the UV through IR. Just tell us the wavelengths you need to reflect, with the desired performance (for example, $R \geq 95\%$, 400-650 nm).
- **Angle of incidence**
At what angle(s) will light hit the optic? Do you need the coating to perform at a single angle of incidence (AOI) or over a range? This has a significant impact on coating design and performance!
- **Clear aperture**
The clear aperture (CA) is the area of the optic that needs to meet all coating specifications. It impacts the fixturing we use, and defines final quality standards.
- **Surface quality**
Often called "scratch/dig," the surface quality we can provide depends also on the incoming optic. We can coat and inspect to 100/80, 80/50, 60/40, 40/20, and even 20/10 with the right substrate.
- **Durability**
Do you have special needs for adhesion, abrasion testing, operating temperature, or humidity? Does a specific MIL-SPEC standard need to be met for salt solubility, salt spray fog, or other condition? We are experts in durable coatings for harsh operating conditions. Some applications also have special cleanability requirements.
- **Any other details?**
Light source specs may be relevant for some color balancing applications in lighting (wattage and fluorescent vs incandescent vs halogen), or when high intensity fiber light or a laser is used. Perhaps you're looking for a new vendor to solve specific issues, or need special packaging to streamline your supply chain.

Need a coating on metal? Tell us your needs – we're here to create solutions.