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This Tool Kit is part of a series of educational aids developed by the members of the National Coil Coating Association. NCCA is a trade association of coil coaters and suppliers of raw materials and equipment used in the coil coating process. The association concentrates its efforts on providing educational resources and assisting its members in providing superior products and services to their customers. NCCA Tool Kits are informational tools and should not be used as substitutes for instructions from individual manufacturers. Always consult with individual manufacturers for specific instructions regarding their products and equipment.

Assessing Coated Metal Commercial Suitability and Fit-for-Purpose Quality

Coil coating is a high-speed painting process known for its efficiency, quality, and sustainability. Coil coaters have advanced the prepainted metal process over the last 60 years, always striving to produce material free from imperfections. Stringent physical property tests are performed on each coil of prepainted metal, and each coil is also inspected visually.

Like all industrial processes, “commercial quality” is a standard that is difficult to define and hard to quantify. It is common to speak in terms of “fit-for-purpose”, where the acceptable level of aesthetic quality is calibrated against the use of material in commerce. “Commercial quality” and “fit-for-purpose” are qualitative terms, and some guidelines are necessary to perform a meaningful assessment.

In an effort to assess the severity of a cosmetic imperfection and to determine if the condition is sufficient to suggest a rejection (*i.e.*, fails to meet commercial-quality standards), the industry recommends the following methodology, unless a different technique has been established between the vendor and the customer:

- Examine the material with the naked eye (*i.e.*, no magnification).
- Use normal illumination (*i.e.*, daylight, typical quality testing illumination, or typical illumination of the end use).
- Hold the material to be inspected between 3-5 feet from the observer in the manner in which it will be used (*i.e.* vertical, horizontal, or at an appropriate angle, depending on end use)
- Examine the material for no more than five seconds.

These guidelines establish a common frame of reference for assessing aesthetic suitability of coated metal in those rare instances where a minor blemish or imperfection may exist. As is the case in any qualitative assessment, different observers may reach different conclusions. In addition, there may be different criteria for different applications, but the criteria above are deemed generally applicable.