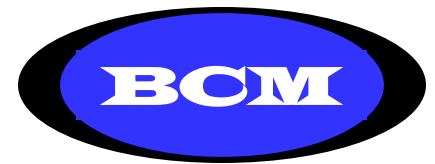


Design For Powder Coat

Designing a part or component with powder coat as the final finish consider these helpful tips.



POWDER COATING - MEDIA BLASTING



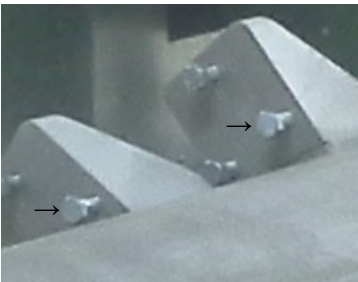
Try to supply the most information you can to your coater. All information or questions are always good, it never hurts to ask questions or express your concerns. This really goes both ways for you and your coater. Be sure to supply specifications, quality information, what the end use of the product is, along with the function of the final finish, does it need to be a decorative or a functional finish or both? In my opinion the number one key is to start good communication between yourself and your powder coater.

When engineering or manufacturing a part consider these things if [powder coating](#) will be the finish. What is the part going to be used for? Will it be in an interior or exterior application, high humidity or harsh environment? Make sure on exterior parts that if possible use continuous welds on seams so that rain, moisture, water and other elements can't start the corrosion cycle on the uncoated areas or seams. Try avoiding pockets or crevasses that pretreatment chemicals or abrasive blast media could get trapped during pretreatment process. If the part is to be pretreated in an immersion or spray wash treatment solution make sure to add drain holes if possible to help provide a way for the pretreatment chemical or blasting media to escape.



The cleaner your part or components surface the better. Remember that a clean part is processed easier and will provide a better quality finish in the end. Sometimes it can be practical to try different forming, or machining oils along with different release agents used during the manufacturing process. Most companies that supply these products can usually recommend a more compatible product if you tell them the product is going to be painted or powder coated. One simple tip is to avoid products with silicon in their make up as this can add real havoc in any paint or powder coating operation. Find out and let your coater know what the incoming soils are. What is on the surface of your part or component when it arrives at the powder coater do you know?

Remember every good finish starts at the first step of the coating process. Ask your coater what kind of pretreatment they perform prior to coating whether it is a chemical process or a form of abrasive blasting. All the different pretreatment processes have their applications and the coater should be able to go into the specifics of each. Aluminum made components should be treated either by a chem film conversion coating or by using abrasive blasting along with primer coating prior to powder coating. Usually the pretreatment is determined by what the end use of the component will be.



Make sure to indicate any surfaces that are not to be coated. In an electrical application mark where there is to be no coating if a component needs a bare uncoated surface for a good ground connection. Specify on your prints or part descriptions if there are any tapped holes or bolt holes as they will need masked to keep the powder coating out of the threads and off the areas that are not to be coated.

Laser cut metal parts should have the cut edges and discolored areas prepared either by a chemical etching process before powder coating. Another solution is a deburring process using vibratory finishing, grinding, or [abrasive blasting](#) to ensure good edge adhesion. Edges that have been deburred, broke over, or rounded help let the powder coating adhere providing a stronger bond allowing a thicker build up on the edges.



Areas that have weld scale or excessive welding or cutting splatter should be ground smooth, or abrasive blasted to remove these from the surface. Taking this step will produce a better looking quality product that will help with powder coating adhesion creating a better bond between the powder coating and the surface of the item to be coated. These are just a few simple things but are often the most over looked. My hope is these tips will help in the design stages of your product or component. If you have a product you need help with or have any questions regarding powder coating we'll be glad to help.

Thanks for reading,
Bill McKeand

bcmmediablasting@hotmail.com

810-824-6391

WWW.BCMEDIABLASTING.COM