

TIGER DRYLAC®

metallic

powder coatings

volume 2



TIGER Drylac®
Powder Coatings

Notes

Bonded Metallics: Tiger Drylac metallic powder coatings are bonded. The bonding of metallic pigments to the base material offers unique advantages over conventional dry blending. This process, though costly, affords an even distribution of pigments for a more uniform finish, overcomes particle segregation during transport and storage and greatly eases powder application. Plus it changes the metallic powder into a recycling consistent material, suitable for reclaim (see application guidelines for metallic powder coatings).

Data Sheets: Periodically updated data sheets, showing cure parameters, test results, pretreatment information and more are available for all products in this chart. Please contact your local Tiger Drylac office or download the latest version from our web site.

RAL Numbers: All RAL numbers are approximate to the RAL Standard.

Custom Colors: Custom colors are available in 10 working days or less with a minimum order of 220 lb.

All of our metallic products can be custom made in an "OGF" or out-gassing forgiving formulation for porous or out-gassing prone substrates, like forged, cast, hot galvanized or aluminum flame sprayed parts as well as fired clay and ceramic products.

Standard Product Catalog: For other colors and finishes available please refer to our Standard Product Catalog of more than 1200 powder coatings.

Guidelines for Application

The following information is intended as a guide for the applicator, informing the user of parameters, which considerably affect the quality of the finish. Caution must be exercised when working with metallic effect powder coatings. Prior to application, the suitability of the entire coating system must be established by comparison with the powder manufacturers' reference samples in order to ensure the shade and the metallic effect. The following recommendations are necessary for satisfactory results:

Color: Powder coatings are formulated to meet color standards; i.e. the RAL standard. Despite the stringent quality control measures exercised during production, a complete batch to batch consistency cannot be guaranteed. Upon request the manufacturer therefore supplies production panels of individual batches. Batch to batch consistency is comparable to that of non-metallic powder coatings. Color deviations between two batches - depending on color - may with lighter shades be at approximately 1-2 Delta E, with darker shades possibly significantly more. However, application process and equipment also are a factor in the final color/effect of the coating and are not yet included in the above values. Evaluations according to Automotive Industry Standards are not admissible. An acceptance test must be performed on the actual application equipment before processing. Those color/effect variables, particularly when powder is recycled, must first be established by producing an upper and lower tolerance sample. To largely eliminate color/effect differences caused by the coating system, an entire coating job must be processed on the same coating line, without parameter fluctuations, preferably without interruptions and with consistent recycling percentages (guideline 30%). Manual coating is likely to produce variations of color and/or effect due to inconsistent film thickness. Manual coating must therefore be adjusted to automatic processing with respect to color and effect. Coating thickness is of importance as variations will cause color/effect differences.

Color/effect: Variations inherent to metallic coatings can be directly linked to content of metallic pigments. Generally fine flakes of metallic pigment are used. Positioning of those flakes within the applied coat determines the metallic effect and color. Experience shows that all parameters of application may influence the position of the flakes and thus also color/effect. It is therefore important that throughout an entire coating job all equipment is left at precisely the same settings. Coating one entire job with a variety of equipment should be avoided, or else considered only after exact adjustments and comparisons produce identical test results with different equipment.

Reclaim: To achieve a consistent color/effect it is important for the coater to establish

and guidelines

a ratio of reclaim and virgin powder and adhere to this ratio. 70% virgin powder should not be exceeded. Since not all metallic effect powders are reclaim-consistent, the virgin powder percentage must be established via upper and lower tolerance samples. A final quality inspection for color is still highly advisable.

Application Equipment: Different powder coating guns, systems and spray parameters are often the cause for varying results. It is very important to only work with nozzles suitable for metallic powder application. Depending on the type of object to be coated, powder should be applied with a flat-spray type nozzle respectively with an aerated impact disk, in an even cloud pattern. Grounding and charging of the powder cloud must be constantly monitored. Interim cleaning of the powder hoses and removal of deposits from powder guns and booths is also part of a regular process control. Metallic powder coating should exclusively be done from fluidized powder containers. Since metallic powder coatings react more sensitively to differing reclaim ratios, the coating should from the very beginning be at approximately 30% reclaim (initial coating without parts).

Charging: Very few metallic powder coatings are suitable for tribo application. Suitability must be established prior to a coating job. Due to differing charging characteristics of powder coating and metallic particles not all metallic particles are transported to the part. This too can cause a variation in color/effect. Changing from electrostatic to tribostatic is not permissible. With metallic powder coatings a particularly clean coating system is very important in order to avoid short-circuiting in the gun area from powder deposits. Once again the importance of constant control over the charging of the powder cloud is stressed.

Grounding: When working with metallic powder coatings proper grounding of the equipment as well as work piece is very important. This contributes to a high degree of color/effect consistency.

Coating Durability: Generally the durability is determined by the processing system - one or two coat. The durability of a metallic powder coating is product specific and therefore we recommend consulting the powder manufacturer prior to application, with particular reference to special requirements, such as wear and scratch resistance, cleaning recommendations, colorfastness and chemical resistance. The manufacturer needs complete information about all of the requirements that the powder coating is subjected to in a project/application in order to give appropriate advice. This includes all materials that the coated part may come in contact with during final installation, i.e. glazing aids. If materials of unknown chemical influence will be used, tests must be performed after consultation with the coating manufacturer. This might necessitate a clear top coating to establish a barrier that prevents color/effect changes caused by those materials, to the metallic coating. Please note established 2-coat curing parameters. Cleaning of metallic powder coated materials must be performed in regular intervals and as quickly as possible after they get soiled. Dried and old dirt can only be removed by scouring, which means scratching of the powder coated surface. It is highly advisable to follow the cleaning recommendations of the manufacturer.

General Recommendations: A primer should be applied to difficult to coat parts, since a subsequent touch up job may produce clouding. When both sides of a finished part must be coated, the side most visual in its final use should be coated last. The final orientation of curtain wall panels on a building must be established prior to coating and all panels must either be coated horizontally or vertically to achieve the same color/effect throughout a coating project. Variations in the heat up period are to be avoided: parts of varying wall thickness cannot be coated at the same time. Please observe and consult the powder coating instruction sheet.

Working with metallic effect powder coatings requires precision. All guidelines must be observed. Most important is proper communication between coater and the customer, but also between coater and coating manufacturer, to assure that all provisions are given for a quality finish.

metallics

■ Silver



■ RAL 9007 Gloss Silver
09/90460 •



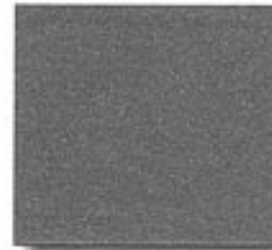
■ Standard Silver
49/90380 •



■ RAL 9007 Silver Gloss
49/92880 •



■ Silver Fine Texture
09/90530 •



■ Sparkle Silver
49/90450 •



■ RAL 9006 Gloss One Coat
49/92890



■ Marine Silver One Coat
38/90010



■ Mirror Silver
49/91260 •



■ Silver Gloss One Coat
49/92900



■ Silver
39/90000 •



■ Silver Matte One Coat
49/92380



■ RAL 9006 Matte One Coat
49/92910



■ Silver Matte
49/90500 •



■ No-Smudge Silver
49/92790 •



■ RAL 9006 One Coat Gloss
59/93370

■ Antique/Vein

■ Glitter



Epoxy Silver Matte
69/91390 •



White Hybrid
09/90160 •



White
49/10363



Gold 49/00310
RAL 3005 Basecoat 49/31900



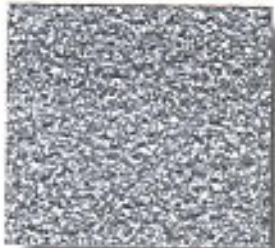
Copper Hybrid
09/90180 •



Copper
49/90620



Silver 49/00320
RAL 5003 Basecoat 49/02200



Grey Hybrid
09/90170 •



Grey
49/10364



Red 49/00330
Black Basecoat 49/02800



Silver Hybrid
09/90190 •



Silver
49/93240



Blue 49/00340
Black Basecoat 49/02800



Gold Hybrid
09/90200 •



Gold
49/91190



Green 49/00350
Black Basecoat 49/02800

■ Holographic
(below)



■ Twilight 49/00390
Black Basecoat 49/82830

■ Metallic



■ Jeans Metallic
09/40670 •



■ Anthracite Metallic
09/80170 •



■ Roman Bronze
39/60060

■ Holographic



■ Blue Stardust 49/40001
Clear Topcoat



■ Purple Metallic
09/45590 •



■ Grey Metallic
09/80340 •



■ Beige C32 One Coat
49/15240



■ Black Stardust 49/90009
Clear Topcoat



■ Green Metallic
09/50530 •



■ Sungold Metallic
09/90140 •



■ Bronze C34 One Coat
49/66220



■ Bronze Metallic
09/60600 •



■ Statuary Bronze
38/60080



■ Brown C33 One Coat
49/66230



■ Beige Metallic
09/60610 •



■ Bronze Matte
39/60020



■ Copper Metallic
49/92780 •

■ Iron Glimmer

Exterior grade Iron Glimmers have that metallic look but no metallic content, making this product a perfect 1-coat finishing solution. Iron glimmers can be produced in any color as a custom order.



DB 501
49/46430



DB 601
49/50100



DB 702
49/77790



DB 703
49/84340-C



P 2
49/70190



P 3
49/70200



P 4
49/70220



P 5
49/80180



P 6
49/70210



P 7
49/80190



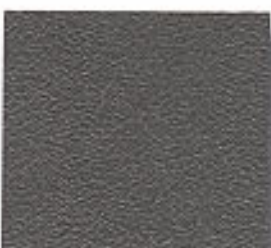
P 14
49/70230



US1 Fine Texture Glimmer
49/70785



US2 Fine Texture Glimmer
49/70787



DB 702 Fine Texture Glimmer
49/70789

Notes

- Products labeled with this mark should be top coated with a clear coat to increase durability and chemical resistance. Please refer to our **Standard Product Catalog** for selections of clear coats available.

Colors and textures have been matched as closely as possible. Paper and ink limitations as well as influence of heat and light account for differences from actual coatings.

Offices and Warehouses

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