

COLOR CARD



*Quality, People, Products, Service & Innovation...*

An **RPM** Company

**TCI**  
POWDER COATINGS



# The Right Formulation

**1000 Series Low Cure Systems** are formulated for heat sensitive substrates. Products are typically formulated to cure at 250°F. Lower temperatures are possible. Powder can be applied with or without minimal substrate preheating. Products in this series will rapidly lose gloss and chalk on exterior exposure and are best suited for interior application. These products feature excellent physical and chemical resistance properties. Typical uses include: medium density fiberboard (MDF), fiber reinforced plastic (FRP), and sheet molding compounds (SMC). Each customer's substrate and application technology must be evaluated before ordering powder.

**2000 Series Acrylic Systems** have a broad formulating range and can meet many decorative application requirements. Products in this series can have increased hardness, chemical resistance, overbake resistance, and weatherability when compared to standard systems. Products can be formulated for interior and exterior applications. Contact a TCI sales representative or TCI chemist to determine suitability of this technology.

**3000 Series High Temperature Systems** are formulated to provide coating stability in elevated temperature applications. Products can be formulated for different levels of continuous or intermittent temperature exposure. Contact a TCI chemist to initiate a product design for high temperature applications.

**4000 Series Specialty Systems** have a broad formulating range and are utilized to meet unusually demanding requirements of decorative and functional applications. This series is recommended when conventional formulas will not meet a customer's performance specifications. Contact a TCI chemist to initiate a product design for demanding applications.

**5000 Series Alternative Cure Polyester Systems** can provide solutions where TGIC or urethane polyesters are not approved. Products in this series can be formulated to meet many decorative requirements for gloss, smoothness, color, and weatherability. Typical uses include: interior and exterior furniture, sports equipment, and machinery.

**6000 Series Epoxy/Polyester Hybrid Systems** have a broad formulating range and can meet many decorative and functional application requirements. Products in this series will rapidly lose gloss and chalk when exposed to sunlight and are best suited for interior applications. This series has a good balance of physical properties and excellent application characteristics. Typical uses include: automotive accessories, exercise equipment, power tools, and display racks.

**7000 Series Epoxy Systems** have a broad formulating range and can meet many decorative and functional application requirements. Products in this series will rapidly lose gloss and chalk when exposed to sunlight and are best suited for interior applications. Epoxy systems can be formulated to have excellent chemical resistance and physical properties. Typical uses include: automotive underbody, corrosion resistant primers, and material handling components.

**8000 Series Urethane Systems** have a broad formulating range and can meet many decorative requirements for gloss, smoothness, color, and weatherability. Products in this series can be formulated for use in interior and exterior thin film applications. Most products in this series are not suitable for high film build. Typical uses include: lighting fixtures, automotive trim, interior automotive components, and interior and exterior furniture.

**9000 Series TGIC Polyester Systems** have a broad formulating range and can meet many decorative and functional requirements for gloss, physical properties, chemical resistance, color, and weatherability. Products in this series can be used in thick film applications. Typical uses include: aluminum extrusions, playground equipment, agricultural equipment, and machinery.

**10000 Series Superior Exterior Performance TGIC Polyester Systems** are formulated to meet the requirements of the AAMA 2604 specification. Products in this series have a 60° gloss range of 25-35% and are available in a wide selection of colors. Proper chrome or non-chrome pretreatment is critical for product performance. A chrome conversion coating must be applied at 30 mg/ft<sup>2</sup> minimum; the non-chrome applied per supplier's specification. A TCI technical representative must audit each application system to insure products will meet the 2604 specification.

**11000 Series Highest Exterior Performance Organic Systems** are formulated to meet the requirements of the AAMA 2605 specification. Products in this series have a 60° gloss range of 25-35% and are available in many colors. Proper amorphous chromium phosphate or amorphous chromate pretreatment is critical for product performance. The chrome coating weight must be applied at 40 mg/ft<sup>2</sup> minimum. A TCI technical representative must audit each application system to insure products will meet the 2605 specification.

For *All* of  
Your Coating  
Needs.

**TCI**  
POWDER COATINGS

**TCI** Certified ISO  
9001  
2000

P. O. Box 13, 734 Dixon Drive, Ellaville, GA 31806 USA  
Phone: 800.533.9067 Fax: 800.265.0404 [www.tcipowder.com](http://www.tcipowder.com)

# Quality, People, Products, Service, & Innovation

TCI has developed products to meet specific customer requirements for many years and as a result has developed extensive technical capabilities in the powder coating industry.

We constantly strive to use available raw materials in the most beneficial way, develop new raw materials for demanding applications, and improve our manufacturing processes and efficiencies. Our main priority is to develop, manufacture and ship products that meet our customers' specifications and arrive on time.

TCI products have been approved and/or meet the requirements for many major industry specifications including:

- Chrysler
- Detroit Diesel
- FDA
- Ford
- General Motors
- Herman Miller
- Honda
- Mitsubishi
- NSF/ANSI
- Toyota
- Underwriters Laboratories
- US Mine Safety and Health Administration

Our investments in people, equipment, processes and information technology enable us to achieve short lead times for product development, laboratory samples, and finished goods.

## AppWright

Increased Productivity Through Improved Resource Management

Using our innovative customer relationship software by AppWright provides you exclusive communication with TCI.

- Place Orders
- Track Product Development in Real Time
- Check Production Scheduling and Shipping
- Submit Customer or Industry Specifications
- Request MSDS and Product Data Sheets
- Request Product Samples, Lab Samples, or Sample Panels

TCI customers have access to our expert field service technicians and product chemists for help with product trials, application improvements and new product development.



Your TCI Sales Representative



## Order Now!

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# Select The Right Product

Interior Applications-1000, 2000, 3000, 4000, 6000, 7000

Exterior Applications-2000, 3000, 4000, 5000, 8000, 9000, 10000, 11000

PROPERTY	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000
Hardness	E	E	G	VG-E	VG	VG	E	G	VG	VG	VG
Flexibility	E	P	G	VG	E	E	E	E	E	E	E
Overbake Stability	P	E	E	VG	E	VG	P	G	E	VG	VG
Exterior Durability	No	P-E	P-E	P-E	E	No	No	E	E	S	HP
Corrosion Protection	E	VG	G	E	VG	VG	E	VG	VG	E	E
Chemical Resistance	E	E	G	VG	VG	VG	E	G	VG	VG	VG
Application Properties	VG	G	G	VG	VG	E	VG	G	E	VG	VG

P=Poor G=Good VG=Very Good E=Excellent S=Superior (AAMA 2604) HP=Highest Performance (AAMA 2605)

## THE FIRST NUMBER IS THE RESIN TYPE

1=Low Cure  
2=Acrylic  
3=High Temperature  
4=Specialty  
5=Alt. Cure  
6=Hybrids  
7=Epoxy  
8=Urethane  
9=TGIC  
10=AAMA 2604  
11=AAMA 2605

### EXAMPLE

9801/1000

## THE SECOND NUMBER IS THE 60° GLOSS READING

0=0-9  
1=10-19  
2=20-29  
3=30-39  
4=40-49  
5=50-59  
6=60-69  
7=70-79  
8=80-89  
9=90+

### EXAMPLE

9801/1000

## THE THIRD NUMBER IS THE CURE RESPONSE

(Time at metal temperature for full cure)  
0=12 min. @ 400°F  
1=10 min. @ 400°F  
2=10 min. @ 375°F  
3=10 min. @ 350°F  
4=10 min. @ 325°F  
5=10 min. @ 300°F  
6=10 min. @ 275°F  
7=10 min. @ 250°F

### EXAMPLE

9801/1000

## THE FOURTH NUMBER IS THE SURFACE APPEARANCE

0=Smooth  
1=Metallic  
2=Sand  
3=Orange Peel  
4=Vein  
5=Hammertone  
6=Multi-color  
7=Wrinkle

### EXAMPLE

9801/1000

## THE LAST FOUR CORRESPOND TO THE RAL COLOR SYSTEM

0000=Clears & Metallics  
1000=Yellows & Beiges  
2000=Oranges  
3000=Reds  
4000=Violets  
5000=Blues  
6000=Greens  
7000=Greys  
8000=Browns  
9000=Blacks & Whites

### EXAMPLE

9801/1000





## Problem

## Origin

## Solution

### Pretreatment

Parts not cleaned.

Chemical selection.  
Temperature.

Identify soils.  
Increase temperature.

Chemical concentration.

Adjust to recommended  
concentration.

Cross stage  
contamination.

Part configuration.

Arrange parts for  
optimum clean and rinse.

Throughput rate.

Allow sufficient time  
for adequate rinse and  
drainage between stages.

Parts are rusting  
between stages or after  
pretreatment.

Dry off occurring  
between stages.

Adjust time and temperature.  
Adjust nozzles for maximum  
coverage.

Phosphate coating  
weight too low.

Adjust time, temperature  
and/or phosphate  
concentration.

Reduced coating adhesion.

Soils not removed.

Determine if proper  
chemicals and process  
conditions are utilized.  
Check orientation of  
parts and spray nozzles to  
insure adequate part  
coverage.

Phosphate coating  
too high or too low.

Adjust process for optimum  
phosphate weight.

### Powder Application

Low film build.

Voltage to electrode  
too low.

Clean or repair voltage  
limiting components.

Part has poor ground.

Check contact areas for  
ground impediment.

Poor Faraday penetration.

Voltage too high.  
Part has poor ground.

Reduce voltage.  
Check contact areas for  
ground impediment.

## Problem

## Origin

## Solution

### Powder Application (continued)

Poor Faraday penetration.

Incorrect pattern and/or gun placement.

Adjust for optimum coverage.

Powder surging or spitting.

Powder flow not continuous.

Check powder fluidization.

Low air pressure.

Increase air pressure.

Poor environmental conditions.

Reduce temperature and humidity of storage and application environment.

### Coating Properties and Appearance

Coating color shifts off color.

Oven temperature too high.

Adjust oven temperature and dwell time to match product cure schedule.

Oven air fouling.

Increase oven air exchange rate.

Poor chemical resistance.

Incomplete curing.

Increase oven cure conditions.

Formulas vary in resistance.

Contact TCI for product resistance characteristics.

Film has excessive orange peel.

Film thickness may be too thick or thin.

Adjust thickness for optimum appearance.

Formulas vary in level of orange peel.

Contact TCI for product recommendations.

Pin holes in surface of coating.

Product contamination.

Clean application equipment.

Substrate outgassing.

Adjust cure cycle and/or change powder formula to minimize effects of metal porosity.



# Coating Attributes and Notes



TCl matches, makes, and stocks coatings from RAL, Federal Standard 595B and Pantone® color decks.  
Coating colors are approximate when matching Pantone® colors.

## (Letters In Parentheses)

- |  |   |
|--|---|
| <b>A</b> Improved Weatherability         | <b>N</b> Recoatable with Powder   |
| <b>B</b> Meets or Exceeds AAMA 2604      | <b>O</b> Recoatable with Liquid or Powder   |
| <b>C</b> Meets or Exceeds AAMA 2605      | <b>P</b> Zinc Rich Primer   |
| <b>D</b> Improved Smoothness             | <b>Q</b> Excellent Performance on Aluminum Substrates   |
| <b>E</b> Improved Hardness               | <b>R</b> Excellent Performance on Steel Substrates  |
| <b>F</b> Improved Chemical Resistance    | <b>S</b> Improved Adhesion on Marginal Substrates   |
| <b>G</b> Improved Outgassing Resistance  | <b>T</b> 5000+ Hours of Salt Spray  |
| <b>H</b> Reduced Temperature Cure        | <b>U</b> Non-Blooming   |
| <b>I</b> Zero T Flexibility              | <b>V</b> Poor Adhesion of Graffiti Type Material  |
| <b>J</b> Improved Color Bake Stability   | <b>W</b> Formulated for Wood and Plastic Substrates   |
| <b>K</b> Increased Mar & Slip Properties | <b>X</b> Tribo Application  |
| <b>L</b> Reduced Cost                    | <b>Y</b> Controlled Conductivity  |
| <b>M</b> Improved Substrate Wetting      | <b>Z</b> A brochure is available with more detailed information-Contact TCl or visit <a href="http://tcipowder.com">tcipowder.com</a> |

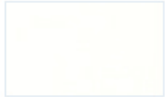
## Notes (Numerals in Parentheses)

- #1** ATCl clear topcoat is recommended to increase appearance stability. Metallic pigments will oxidize and/or discolor on exterior exposure, in high wear applications, and when exposed to chemicals.
- #2** Careful monitoring of the virgin to reclaim ratio in metallic coatings is essential to maintain consistent appearance. Bonding reduces appearance variation significantly.
- #3** Curing metallic coatings at elevated temperatures or for prolonged periods can cause metallic discoloration.
- #4** To promote best inter-coat adhesion in two coat, primer-powder topcoat systems, cure the primer approximately 50%. Apply the topcoat and cure according to the topcoat cure schedule
- #5** Powder shelf life can vary with different formulations. For maximum shelf life store powder below 75°F and 50% RH.

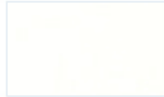


**TCl**  
POWDER COATINGS

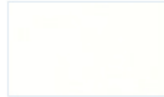
# Hybrids 6000



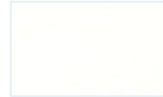
6920-9031  
Arctic White



6920-91067  
Universal White



6820-9189  
Cabinet White



6720-90335  
Oyster White



6720-9262  
Cabinet Beige



6820-1060  
Almond



6820-1065  
Antique White



6920-1229  
Piedmont Almond



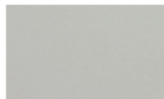
6720-1062  
Champagne



6820-7059  
Circuit Grey



6620-7530  
RAL 7040 Grey



6720-7050  
Mercury Grey



6820-1147  
Brite Yellow



6920-11167  
Canary Yellow



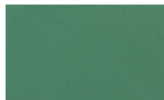
6820-2004  
RAL 2004



6820-3063  
Fire Red



6820-3044  
Winchester Red



6620-60089  
RC Green



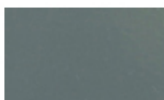
6820-5061  
Cobalt Blue



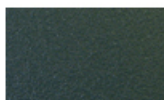
6820-5085  
Bahama Blue



6820-8052  
Seating Brown



6820-7084  
Globe Grey



6032-71126  
RAL 7021 Tex



6420-9540  
45 Black



6920-9000  
Channel Black

## Primers



6930-71145  
Dark Grey Primer  
(H, M, N, Q, R, #4)



7520-70138  
Zinc Rich Primer  
(O, P, R, T, Z, #4)

8510-7833  
HH Grey Primer  
(O, #4)



# Surface Effects



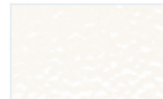
6323-9037  
White Peel



6232-9044  
White Tex



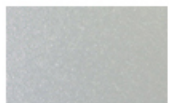
8002-9081  
Yoke White



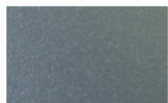
9313-9062  
Poly White Peel



6132-1056  
Almond Tex



6132-7047  
Fog Grey



6132-7054  
Tornado Grey



6032-9000  
Black Tex



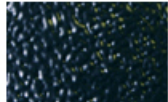
9012-9000  
Tex Black



9002-9324  
JA6A Tex Polyester



6223-9000  
Black Peel



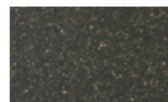
9313-9000  
Poly Black Peel



7027-90326  
Epoxy Black Wrinkle



9416-9503M  
Luna (Z)



8016-8855M  
Speckled Bronze (Z)

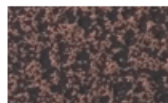
# Metallic Effects



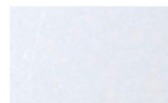
7334-0065  
Silver Vein (#1)



7334-0050  
Gold Vein (#1)

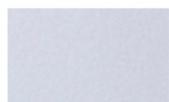


7334-0060  
Copper Vein (#1)

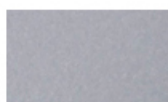


9711-0259  
Bright Argent Metallic (#1)

8910-0227  
Gloss Bonded Chrome (#1)



9811-0110  
Wheel Silver (#1)



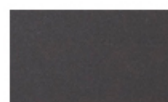
8911-0150  
Stardust Silver (#1)



9012-0050  
Silver Tex



9411-8040  
Quaker Bronze



9411-8041  
#40 Bronze

# Clears



8200-0000  
LG Clear



8910-01004  
Gloss Clear Urethane



9910-0000  
TGIC Clear

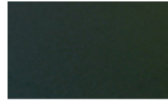
# Epoxies 7000



7010-9236  
JA6AXXJ Flat Black (Z)



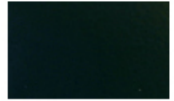
7010-9000  
Flat Black



7110-9000  
10 Black



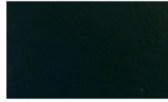
7210-9000  
Trans Black



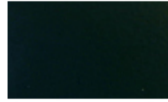
7240-91040  
Eureka Black



7440-91091  
Coal Black II



7830-9000  
Auto Chassis Black (Z)



7830-9000HF  
High Flow Black (Z)

# Urethanes 8000



8910-91065  
Continental White



8810-9074  
Furniture White



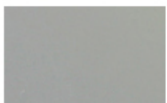
8400-9053  
Satin White



8810-11165  
Coco Tan



8810-7097  
Tropic Grey



8300-7087  
6I Grey



8810-10577  
Goldenrod



8810-1095  
Trinidad Yellow



8810-6058  
Forest Green



8000-9000  
Dash Black



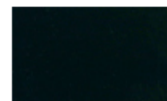
8702-9000  
JASAXXG (Z)



8200-9000  
Satin Black



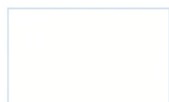
8510-9000  
Universal Black



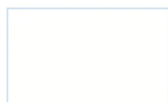
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Gloss Black



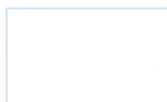
# Special Properties



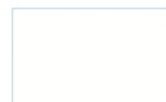
6010-91089  
Bake Stable White  
(D, E, F, J)



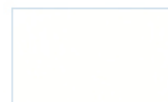
8910-9773  
Antigraffiti White  
(E, F, V)



9940-90966  
Super Sky White 325  
(A, H, U)



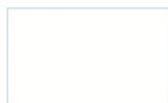
10310-91095  
Bone White/AAMA 2604  
(A, B, D, E, F, G, J, Q, Z)



11310-91090  
Bone White/AAMA 2605  
(A, C, D, E, F, G, J, Q, T, Z)



9610-91077  
Pompano Flex White  
(I, J, K, Q, R)



7110-90638  
Conductive Designer White  
(D, J, Y)



9510-70039  
Super Grey 61  
(A, M, R, U)



9310-90160-G  
SD Black Poly  
(A, B, E, F, G, K, Q, R, U)



9510-91039  
SD Mineral Black  
(A, K, M, R, U)



9720-9615  
Frame Black  
(M, O, R, S, Z)



9910-9845  
Accuride Black II  
(A, D, U)



8910-0231  
Antigraffiti Clear  
(E, F, V)



1062-91100  
Black Tex LCWP  
(E, F, H, W)

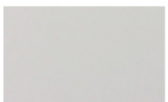


9840-90934  
Quest Tribo Black  
(M, X)

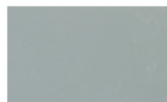
# Low Cure



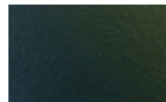
9840-90062  
Low Cure Sky White  
(H, J)



6550-70304  
Lowes Grey 300  
(H)



9530-70200  
HPC 61 Grey  
(H)



2260-91094  
Trans Black 275  
(D, E, H)



6730-9000  
Rapid Black  
(H)



9042-90137  
LC Black Tex  
(A, H)



9330-90775  
LC Poly Satin Black  
(D, E, F, G, H, K)



9630-9949  
LC Mineral Black II  
(H, K)

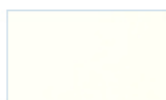


9740-90637  
High Slip Black  
(E, H, K)

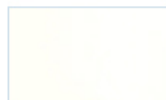
# TGIC 9000



9910-9035  
Crystal White



9910-9897  
Sky White II



9930-9789  
TGIC Mende White II



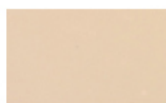
9910-9741  
Brite White



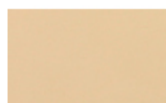
9610-9021  
Pompano White



9910-1045  
Pasta



9810-1048  
Sandlewood



9810-1049  
Mesa Tan



9810-7042  
Electric Grey/ASA 70



9900-7111  
Win Grey



9610-7040  
Storm Grey



9810-1070  
Golden Yellow



9810-1268  
Safety Yellow



9810-2113  
Sonny Orange II



9910-2352  
October Orange



9810-3042  
Ruby Red



9910-3921  
Chili Pepper



9910-3922  
Crimson



9810-6046  
Ivy Green



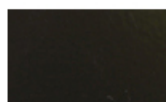
9910-5067  
Azure Blue



9810-5413  
Bahama Blue Poly



9910-5054  
Ocean Blue



9910-8036  
Dark Sienna



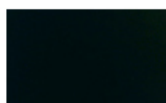
9022-71127  
RAL 7021 Poly Tex



9030-90922  
SD Flat Black



9510-9000  
Mineral Black



9710-9000  
Cargo Black



9900-9000  
Jet Black



9910-9000  
Shuttle Black



9310-90278  
Satin Black  
Polyester