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**Material and Finish Code Specification**  
**for**  
**Metal Parts**

CHECKED BY : \_\_\_\_\_ DATE: \_\_\_\_\_

**APPROVALS:**

ENGINEERING : \_\_\_\_\_ DATE: \_\_\_\_\_

MANUFACTURING  
ENGINEERING : \_\_\_\_\_ DATE: \_\_\_\_\_

QUALITY ASSURANCE : \_\_\_\_\_ DATE: \_\_\_\_\_

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REV	ECO/EAR	DATE	DESCRIPTION OF CHANGE	APPROVALS
BJ	11-0005-07	3/12/12	<b>ADDED TO T10</b> finish, Dupont (Dongguan Dupont Huajia Performance Coatings Limited Company, China) Alesta AE7150431-S Midnight Blue/RAL 5011 TGIC free Polyester Powder Coat.	Amar Kini, Bob Miller, Jim Welch
BK	12-056	4/11/12	<b>Remove</b> Dupont PFH752S8 ASA 61 Gray Powder Coat, and Cardinal T008-GR736 Gray Powder Coat (UL Recognized) from <b>B1</b> . Valspar IF2411 Seafoam TGIC Polyester Powder Coat, and Morton 20-6023 Corvel Green Polyester Powder Coat from <b>C2</b> . Protech P100W14 White TGIC Polyester Powder Coat (UL Recognized), and DuPont Alestra Sky White PFW510S9, TGIC Polyester Powder Coat from <b>C3</b>	Jonathan Carpenter, Bob Miller, Jim Welch
BL	12-103		<p><b>CHANGED MPN</b> for finish spec xxx-xxx-<b>B1</b>  <b>FROM</b> Tiger Drylac 49/70050 ASA-61 Gray Polyester Powder Coat (UL Recognized)  <b>TO</b> Cardinal T008-GR736 Gray Powder Coat (UL Recognized).</p> <p><b>CHANGED MPN</b> for finish spec xxx-xxx-<b>C2</b>  <b>FROM</b> Tiger Drylac 249/52200 Alpha Sea Foam Green Polyester Powder Coat  <b>TO</b> Cardinal T009-GN325 Sea Foam Green Powder Coat.</p> <p><b>CHANGED MPN</b> for finish spec xxx-xxx-<b>C3</b>  <b>FROM</b> Tiger Drylac Polyester 39/10160 Horizon White  <b>TO</b> Cardinal T009-WH11 Horizon White Powder Coat.</p>	John Highet, Bob Miller, Jim Welch
BM	13-107	07/25/13	<p><b>ADDED</b> xxx-xxx-<b>J3</b> Stainless Steel, painted Pine Green Tiger Drylac Pine Green 49/52650 (RAL 6028)</p> <p><b>ADDED</b> xxx-xxx-<b>J4</b> Stainless Steel, Painted White Cardinal T009-WH11 Horizon White Powder Coat</p> <p><b>ADDED</b> xxx-xxx-<b>B14</b> Aluminum, painted textured, semi-gloss, Alpha Blue. Cardinal C241-BL501, LS# 12488 Alpha Blue, Textured, Semi-Gloss, TGIC free Polyester Powder Coat  Dupont (Dongguan Dupont Huajia Performance Coatings Limited Company, China) Alesta AE7150431-S Midnight Blue/RAL 5011, Semi Gloss, TGIC free Polyester Powder Coat</p> <p><b>CHANGED MPN</b> for finish spec xxx-xxx-<b>H1</b>  <b>DELETED</b> Tiger Drylac 49/70050 ASA-61 Gray Polyester Powder Coat (UL Recognized)</p> <p><b>CHANGED MPN</b> for finish spec xxx-xxx-<b>J2</b></p>	J. Highet, J. Dennison, J. Welch



			<p><b>FROM</b> Valspar IF2411 Seafoam TGIC Polyester Powder Coat <b>TO</b> Cardinal T009-GN325 Sea Foam Green Powder Coat</p> <p><b>CHANGED MPN</b> for finish spec xxx-xxx-R3 <b>FROM</b> Protech P100W14 White TGIC Polyester Powder Coat (UL Recognized) <b>TO</b> Cardinal T009-WH11 Horizon White Powder Coat</p>	
BN	13-158	01/27/14	<p><b>DELETED</b> xxx-xxx-B13 <b>ADDED</b> Cardinal T009-BG01 Polyester TGIC Powder Coating, Full Gloss Smooth, Almond to xxx-xxx-F2 <b>CHANGED</b> xxx-xxx-F3 and xxx-xxx-U3 Finish Specification from 'Tiger Drylac 449/71140' to Tiger Drylac 459/70150 (was 449/71140) <b>ADDED</b> 'CHECKER' sign off at top of cover page &amp; flagged other signatures as 'APPROVALS'</p>	<p>CHK: B. Witman ENG: M. Gibbons MFG: J. Dennison QA: J. Welch</p>
BQ	14-063	05/08/14	<p><b>ADDED</b> XXX-XXX-W10 Steel, zinc plated (0.0003" thick), plus bronze conversion, painted White <b>ADDED</b> XXX-XXX-N16 Steel, electro-galvanized, painted textured, semi-gloss, Alpha Blue. <b>ADDED</b> XXX-XXX-N17 Steel, electro-galvanized, painted flat black</p> <p><b>DELETED</b> Revision history prior to Rev. BH</p>	<p>CHK: J. Hight ENG: B. Witman MFG: J. Dennison QA: J. Welch</p>
BR	15-020	3/25/15	<p><b>ADDED</b> XXX-XXX-W11 Steel, zinc plated (0.0003" thick), plus bronze conversion, painted Pine Green</p>	<p>CHK: M. Haugness ENG: M. Gibbons MFG: J. Welch QA: J. Welch</p>
BS	15-004	07/07/15	<p><b>ADDED</b> XXX-XXX-C12 Aluminum, painted textured black, Cardinal T241-BK59 polyester GIC powder coat <b>ADDED</b> XXX-XXX-P12 Steel, painted Semi-Gloss Texture Black, ATL finish code 243 , Cardinal C241-BK01 - Polyester Powder Coat (TGIC free) <b>ADDED</b> XXX-XXX-R11 Steel, painted quartz gray, Cardinal industrial grey quartz (T243GR301) TGIC polyester <b>ADDED</b> XXX-XXX-R12 Steel, painted textured black, Cardinal T241-BK59 polyester GIC powder coat</p>	<p>CHK: M. Glaser ENG: M. Glaser MFG: J. Dennison QA: J. Dennison</p>
BT	15-113	02/19/16	<p><b>ADDED</b> Ink Type 7</p>	<p>CHK: B. Witman ENG: M. Wypych MFG: J. Dennison QA: J. Welch</p>
BU	16-171	12/12/16	<p><b>CHANGED</b> Enthone/Hysol description to MacDermid/Enthone (Pg. 4)</p>	<p>CHK: J. Hight ENG: A. James MFG: J. Dennison QA: J. Welch</p>
BV	17-057	05/09/17	<p><b>ADDED</b> XXX-XXX-W12 Steel, zinc plated (0.0003" thick), plus bronze conversion, painted "Generac" Beige <b>ADDED</b> XXX-XXX-H7 Stainless Steel, Painted Almond</p>	<p>CHK: ENG: B. Witman MFG: QA:</p>



**ATTENTION METAL FINISHERS**

The following notes must be complied with on painted and/or plated parts, unless otherwise specified:

1. FINISH: POWDER COAT PER ALPHA SPECIFICATION #070-022-00 AND ALPHA WORKMANSHIP STANDARDS 071-522-00, DESIGN THICKNESS 0.0015 - 0.0040".
2. FINISH: PLATED PER ALPHA SPECIFICATION #070-022-00 AND ALPHA WORKMANSHIP STANDARDS 071-520-00, DESIGN THICKNESS 0.0002 - 0.0003".
3. ALL THREADED AND MATING SURFACES OF HARDWARE MUST BE FREE OF PAINT.
4. FOR "MARKING ACCEPTANCE REQUIREMENTS" SEE ALPHA WORKMANSHIP STANDARDS 071-523-00 (AAII USE ONLY).
5. STEEL PARTS HAVING STAINLESS STEEL CAPTIVE HARDWARE (PEM, etc.) MUST BE TREATED WITH A SULFURIC ACID ACTIVATOR OR "NICKLE-STRIKE" PROCESS PRIOR TO PLATING.
6. FINISH: STATIC CHARGED SPRAY PAINT PER ALPHA SPECIFICATION #070-022-00, DESIGN THICKNESS 0.001 - 0.0035".
7. **ALL FINISHES MUST BE RoHS COMPLIANT. IF A PARTICULAR FINISH SPECIFICATION DOES NOT MEET RoHS, PLEASE NOTIFY ALPHA IMMEDIATELY.**

**ATTENTION SILKSCREENERS**

The following notes must be complied with on silkscreened parts, unless otherwise specified:

1. SILKSCREEN PER ALPHA WORKMANSHIP STANDARDS 071-523-00 AND ASTM D3359.
2. **ALL MATERIALS MUST BE RoHS COMPLIANT.**

The following is a table of silkscreen paint combinations:

TYPE	QTY	DESCRIPTION
Type 1	100 Parts 7 Parts	MacDermid/Enthone, Cat-L-Ink, 50-700R, Black MacDermid/Enthone, M Series, 20 / A or 77, Catalyst
Type 2	100 Parts 6 Parts	MacDermid/Enthone, Cat-L-Ink, 50-100R, White MacDermid/Enthone, M Series, 20 / A or 77, Catalyst
Type 3	70 Parts 5 Parts 4 Parts	MacDermid/Enthone, Cat-L-Ink, 50-100R, White MacDermid/Enthone, Cat-L-Ink, 50-700R, Black MacDermid/Enthone, M Series, 20 / A or 77, Catalyst
Type 4	100 Parts 6.5 Parts	MacDermid/Enthone, Cat-L-Ink, 50-400R, Ultra Marine Blue MacDermid/Enthone, M Series, 20 / A or 77, Catalyst
Type 5	100 Parts 25 Parts	Naz-Dar / KC, ER-114, Brown Naz-Dar / KC, ER Series, ER-176, Catalyst
Type 6	100 Parts 6.5 Parts	MacDermid/Enthone , Cat-L-Ink, 50-508R, Medium Red (Chromium) MacDermid/Enthone, M Series, 20 / A or 77, Catalyst For reference only: Ink color to be equivalent to Pantone 1795
Type 7	100 Parts 4 Parts	MacDermid/Enthone, Cat-L-Ink, 50-PMS 354C Green MacDermid/Enthone, M Series, 45, Catalyst



**MATERIAL AND FINISH CODES**

PART NUMBER	MATERIAL AND FINISH	FINISH SPECIFICATION
xxx-xxx-A1 (-xxx)	Aluminum, bare (no finish)	
xxx-xxx-A2 (-xxx)	Aluminum, gold conversion (a.k.a. gold alodine or gold irridite)	Conversion coating per MIL-C-5541E, Class 3 <b>Must be RoHS-compliant</b>
xxx-xxx-A3 (-xxx)	Aluminum, clear anodize	
xxx-xxx-A4 (-xxx)	Aluminum, black anodize	
xxx-xxx-A5 (-xxx)	Aluminum, clear conversion (a.k.a. clear alodine or clear irridite)	Conversion coating per MIL-C-5541E, Class 3 <b>Must be RoHS-compliant</b>
xxx-xxx-A6 (-xxx)	Aluminum, Bare, Smooth, with One-Sided, Heat-Laminated, Strippable Vinyl Moisture Barrier	
xxx-xxx-A7 (-xxx)	Aluminum, Bright Tin Plated	Bright Tin Plating per ASTM B545 over Copper Flash <b>Must be RoHS-compliant</b>
xxx-xxx-B1 (-xxx)	Aluminum, painted ASA-61 semi-gloss gray	Cardinal T008-GR736 Gray Powder Coat (UL Recognized)
xxx-xxx-B2 (-xxx)	Aluminum, painted gray leatherette	Protech HT212A4 (was H1000AT4) Textured Gray Hybrid Powder Coat (UL Recognized)
xxx-xxx-B3 (-xxx)	Aluminum, painted semi-gloss black	Protech DS311N12 (was PS311N1) Semi Gloss Black TGIC Polyester Powder Coat (UL Recognized) (for Burnaby) Morton Thiokol 20-7037 Ebony Black Powder Coat (for Bellingham)
xxx-xxx-B4 (-xxx)	Aluminum, painted light tan (for Albar/C-Cor)	Glidden Pulvalure 6DI06 Lite Tan TGIC Polyester Powder Coat (UL Recognized)
xxx-xxx-B5 (-xxx)	Aluminum, painted clear coat	Tiger Drylac 39/00020 TGIC Polyester
xxx-xxx-B6 (-xxx)	Aluminum, painted midnight blue	Protech PS211B2 (was P100B2) Midnight Blue TGIC Polyester Powder Coat (UL Recognized)
xxx-xxx-B7 (-xxx)	Aluminum, painted platinum (for Compower)	Protech HS412H36 (was H1000H36) Platinum Hybrid Powder Coat (UL Recognized)
xxx-xxx-B8 (-xxx)	Aluminum, painted "Teledyne" blue (for Teledyne)	Textured Polane, Pantone #281C Blue
xxx-xxx-B9 (-xxx)	Reserved	
xxx-xxx-B10 (-xxx)	Aluminum, painted gloss black	Cardinal T009-Bk12 #17038 Black TGIC Polyester Powder Coat (for Burnaby)
xxx-xxx-B11 (-xxx)	Aluminum, Painted Midnight Blue	Cardinal X002-BLW01541 RAL 5011 20% Gloss Powder Coat
xxx-xxx-B12 (-xxx)	Aluminum, Painted Desert Sand	Tiger Drylac 16/15013 Desert Sand MIL580 Smooth Matte Powder Coat



xxx-xxx-B13 (-xxx)	Deleted	
xxx-xxx-B14 (-xxx)	Aluminum, painted textured, semi-gloss, Alpha Blue.	Cardinal C241-BL501, LS# 12488 Alpha Blue, Textured, Semi-Gloss, TGIC free Polyester Powder Coat Dupont (Dongguan Dupont Huajia Performance Coatings Limited Company, China) Alesta AE7150431-S Midnight Blue/RAL 5011, Semi Gloss, TGIC free Polyester Powder Coat
xxx-xxx-C1 (-xxx)	Reserved	
xxx-xxx-C2 (-xxx)	Aluminum, painted sea foam green	Cardinal T009-GN325 Sea Foam Green Powder Coat
xxx-xxx-C3 (-xxx)	Aluminum, painted white	Cardinal T009-WH11 Horizon White Powder Coat
xxx-xxx-C4 (-xxx)	Aluminum, painted flat black	Morton Thiokol <b>80-7001</b> Corvel Solar Black TGIC Polyester Powder Coat Cardinal #E300-BK147 Flat Black Epoxy
xxx-xxx-C5 (-xxx)	Aluminum, painted textured gray	Protech PC 4732 Blue-Gray Textured Hybrid (Epoxy/Polyester) Powder Coat *Protech PC 3541 Blue-Gray Textured Hybrid (Epoxy/Polyester) Powder Coat *H.B. Fuller Kativo IF-2913 (was 3449-12B) Blue-Gray Textured TGIC Polyester Powder Coat *H.B. Fuller Kativo 3150-76B Blue-Gray Textured Urethane Powder Coat (* Do not re-order; paint shop may use up existing stock before switching to PC 4732.)
xxx-xxx-C6 (-xxx)	Aluminum, painted anti-graffiti general tan	Tiger Drylac Series 544/15010 Anti-Graffiti General Tan TGIC Polyester
xxx-xxx-C7 (-xxx)	Aluminum, painted "CFR gray"	Cardinal H312-BG160 Beige Textured Epoxy Polyester Hybrid Powder Coat Tiger Drylac 209/72250 Textured Light Gray Epoxy Polyester Hybrid Powder Coat
xxx-xxx-C8 (-xxx)	Aluminum, painted designer beige	Valspar IF-2407 Designer Beige Urethane Powder Coat
xxx-xxx-C9 (-xxx)	Aluminum, painted charcoal gray (for MPR)	Tiger Drylac Series 209-71390 (ATM Gray) Fine Textured Gray Polyester Powder Coat
xxx-xxx-C10 (-xxx)	Aluminum, painted surf green	TCI Powder Coatings # 9610-6042, Medium Gloss Green Polyester (TGIC)
xxx-xxx-C11 (-xxx)	Aluminum, painted bronze green	Polyester/TGIC Powder Coating Tiger Drylac 249/55020
xxx-xxx-C12 (-xxx)	Aluminum, painted textured black	Cardinal T241-BK59 polyester GIC powder coat
<b>SECTION D FOR ALUMINUM WITH RoHS COMPLIANT PLATINGS/COATINGS</b>		
xxx-xxx-D1 (-xxx)	Deleted	



xxx-xxx-D2 (-xxx)	Aluminum, plus clear conversion, RoHS compliant	Conversion coating per MIL-C-5541E, Class 3, RoHS compliant
xxx-xxx-E1 (-xxx)	Aluminum, painted semi-gloss green	Tiger Drylac Series 49 Semi-Gloss RAL 6021
xxx-xxx-E2 (-xxx)	Aluminum, painted safety red	DOW Plastics ENVELON Series Safety Red (SR) Powder Coat
xxx-xxx-E3 (-xxx)	Aluminum, painted anti-graffiti Pine green	Tiger Drylac Series 544/50040 RAL 6028 Anti-Graffiti Pine Green TGIC Polyester
xxx-xxx-E4 (-xxx)	Aluminum, painted Hammertone gray	Protech HV 212 A9 Hammertone Gray Hybrid Powder Coat
xxx-xxx-E5 (-xxx)	Aluminum, painted silver gray	Protech HM 212 AS4 Silver Gray Hybrid Powder Coat
xxx-xxx-E6 (-xxx)	Aluminum, painted anti-graffiti Almond	Tiger Drylac Series 544/15020 Anti-Graffiti Almond TGIC Polyester
xxx-xxx-E7 (-xxx)	Aluminum, painted anti-graffiti sea foam green	Tiger Drylac Series 544/50050 Anti-Graffiti Sea Foam Green TGIC Polyester
xxx-xxx-E8 (-xxx)	Aluminum, painted anti-graffiti ASA-61 semi-gloss gray	Tiger Drylac Series 544/70020 Anti-Graffiti ASA-61 Gray TGIC Polyester
xxx-xxx-E9 (-xxx)	Aluminum, painted forest green	Tiger Drylac Series 249/52690 Pantone 357C Green TGIC Polyester Powder Coat
xxx-xxx-E10 (-xxx)	Aluminum, painted "Solaris" Beige	Tiger Drylac Series 49/70520 (RAL9002) TGIC Polyester Powder Coat
xxx-xxx-E11 (-xxx)	Aluminum, painted Light Silver	Tiger Drylac Series 38/91020 Anodized Silver TGIC Polyester Powder Coat
xxx-xxx-F1 (-xxx)	Aluminum, painted pastel green	Tiger Drylac Series 249/52860 Smooth Green TGIC Polyester Powder Coat
xxx-xxx-F2 (-xxx)	Aluminum, painted almond	DuPont Alestra Almond PFT500S8, TGIC Polyester Powder Coat  Tiger Drylac Series 39/15020 Semi-Gloss Powder Coat  Cardinal T009-BG01 Polyester TGIC Powder Coating, Full Gloss Smooth, Almond
xxx-xxx-F3 (-xxx)	Aluminum, painted hybrid gray	Tiger Drylac 459/70150 (was 449/71140) Cardinal GR1465-C004
xxx-xxx-F4 (-xxx)	Aluminum, painted dark green	Cardinal C006-GN03 Green TGIC Free Polyester Powder Coat Semi Gloss Smooth Green
xxx-xxx-F5 (-xxx)	Aluminum, painted "Generac" Beige	Powder Technology, Inc. #PT-TS95-TS35 Compartment Tan 2SD TGIC
xxx-xxx-F6 (-xxx)	Aluminum, Fir Green	Tiger Drylac Fir Green 49/52840 (RAL 6009)
xxx-xxx-F7 (-xxx)	Aluminum, Painted Pine Green	Tiger Drylac Pine Green 49/52650 (RAL 6028)



xxx-xxx-F8 (-xxx)	Aluminum, Painted Thermal Plastic Almond.	Plascoat PPA 571 ES, Almond (212)
xxx-xxx-F9 (-xxx)	Aluminum, Painted Quartz Gray	Cardinal Industrial Grey Quartz (T243GR301) TGIC Polyester
xxx-xxx-F10 (-xxx)	Aluminum, painted Central Office White	Dupont Powder Coatings Central Office White UFW-563-S3, Urethane Powder Coat
xxx-xxx-G1 (-xxx)	Stainless Steel, bare (no finish)	
xxx-xxx-G2 (-xxx)	Stainless Steel, bare, passivated	
xxx-xxx-H1 (-xxx)	Stainless Steel, painted ASA-61 semi-gloss gray	Cardinal T008-GR736 Gray Powder Coat (UL Recognized)
xxx-xxx-H2 (-xxx)	Stainless Steel, painted hybrid gray	Protech #HS312 A355 Hybrid Gray Powder Coat
xxx-xxx-H3 (-xxx)	Stainless Steel, Painted Thermal plastic black	Plascoat PPA 571 ES, Black (RAL 9005)
xxx-xxx-H4 (-xxx)	Stainless Steel, Painted Light Silver	Tiger Drylac Series 38/91020 Anodized Silver TGIC Polyester Powder Coat
xxx-xxx-H5 (-xxx)	Stainless Steel, Painted Midnight Blue	Cardinal X002-BLW01541 RAL 5011 20% Gloss Powder Coat
xxx-xxx-H6 (-xxx)	Stainless Steel, Painted Thermal plastic beige	Plascoat PPA 571 ES, Beige (222)
xxx-xxx-H7 (-xxx)	Stainless Steel, Painted Almond	DuPont Alestra Almond PFT500S8, TGIC Polyester Powder Coat  Tiger Drylac Series 39/15020 Semi-Gloss Powder Coat  Cardinal T009-BG01 Polyester TGIC Powder Coating, Full Gloss Smooth, Almond
xxx-xxx-J1 (-xxx)	Reserved	
xxx-xxx-J2 (-xxx)	Stainless Steel, painted sea foam green	Cardinal T009-GN325 Sea Foam Green Powder Coat
xxx-xxx-J3 (-xxx)	Stainless Steel, painted Pine Green	Tiger Drylac Pine Green 49/52650 (RAL 6028)
xxx-xxx-J4 (-xxx)	Stainless Steel, Painted White	Cardinal T009-WH11 Horizon White Powder Coat
xxx-xxx-M1 (-xxx)	Steel, electro-tin plated	
xxx-xxx-M2 (-xxx)	Deleted	Use M5
xxx-xxx-M3 (-xxx)	Steel, zinc plated (0.0008" thick), plus bronze conversion (a.k.a. bronze irridite)	Zinc Plating Per ASTM B633-98, TYPE II Bronze, EXCEPTIONS: FE/ZN 20 (20 µm thick) (for Severe Environments) <b>Must be RoHS-compliant</b>





xxx-xxx-M4 (-xxx)	Steel, zinc plated (0.0010" thick), plus bronze conversion (a.k.a. bronze irridite)	Zinc Plating Per ASTM B633-98, TYPE II Bronze, FE/ZN 25 (for Very Severe Environments) <b>Must be RoHS-compliant</b>
xxx-xxx-M5(-xxx)	Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process	Zinc Plating: G90-Commercial Quality per ASTM A653/A653M-06 (for BBY)
xxx-xxx-M6(-xxx)	Steel, Zinc Plated (0.0002" Thick) Plus Clear Conversion	Zinc Plating Per ASTM B633-98, TYPE III Clear, FE/ZN 5, Bright <b>Must be RoHS-compliant</b>
xxx-xxx-N1 (-xxx)	Steel, bare (no finish)	
xxx-xxx-N2 (-xxx)	Steel, hot dip galvanized	Zinc plating per ASTM A123
xxx-xxx-N3 (-xxx)	Steel, electro-galvanized	Zinc Coated Per A879/A879M-04 by the Electrolytic Process for Applications Requiring Designation of the Coating Mass on Each Surface
xxx-xxx-N4 (-xxx)	Steel, zinc plated (0.0003" thick), plus bronze conversion (a.k.a. bronze irridite)	Zinc Plating Per ASTM B633-98, TYPE II Bronze, FE/ZN 8, Bright <b>Must be RoHS-compliant</b>
xxx-xxx-N5 (-xxx)	Steel, zinc plated (0.0003" thick), plus clear conversion (a.k.a. clear irridite)	Zinc Plating Per ASTM B633-98, TYPE III Clear, FE/ZN 8, Bright <b>Must be RoHS-compliant</b>
xxx-xxx-N6 (-xxx)	Steel, hot tin dipped	
xxx-xxx-N7 (-xxx)	Deleted	
xxx-xxx-N8 (-xxx)	Steel, iron phosphate dipped	
xxx-xxx-N9 (-xxx)	Steel, tin plated (ferrostan)	
xxx-xxx-N10(-xxx)	Steel, electro-galvanized, painted white	Zinc Coated Per A879/A879M-04 by the Electrolytic Process for Applications Requiring Designation of the Coating Mass on Each Surface Apollo White Glossy, Tiger Drylac #39/10210 (for BBY)
xxx-xxx-N11(-xxx)	Steel, zinc plated (.0002 thick) plus black conversion	Zinc plating per ASTM B633-98, Type 2, Black FE/ZN 5 Semi-Bright <b>Must be RoHS-compliant</b>
xxx-xxx-N12(-xxx)	Steel, painted "Solaris" Beige	Tiger Drylac Series 49/70520 (RAL9002) TGIC Polyester Powder Coat (for Burnaby)
xxx-xxx-N13(-xxx)	Steel, electro-galvanized, painted "Solaris" Beige	Zinc Coated Per A879/A879M-04 by the Electrolytic Process for Applications Requiring Designation of the Coating Mass on Each Surface Tiger Drylac Series 49/70520 (RAL9002) TGIC Polyester Powder Coat (for Burnaby)



xxx-xxx-N14(-xxx)	Steel, electro-galvanized, painted Gloss Black	Zinc Coated Per A879/A879M-04 by the Electrolytic Process for Applications Requiring Designation of the Coating Mass on Each Surface Cardinal T009-Bk12 #17038 Black TGIC Polyester Powder Coat (for Burnaby)
xxx-xxx-N15(-xxx)	Steel, electro-galvanized, painted Dark Green	Zinc Coated Per A879/A879M-04 by the Electrolytic Process for Applications Requiring Designation of the Coating Mass on Each Surface Cardinal C006-GN03 Green TGIC Free Polyester Powder Coat Semi Gloss Smooth Green
xxx-xxx-N16(-xxx)	Steel, electro-galvanized, painted textured, semi-gloss, Alpha Blue.	Zinc Coated Per A879/A879M-04 by the Electrolytic Process for Applications Requiring Designation of the Coating Mass on Each Surface Cardinal C241-BL501, LS# 12488 Alpha Blue, Textured, Semi-Gloss, TGIC free Polyester Powder Coat Dupont (Dongguan Dupont Huajia Performance Coatings Limited Company, China) Alesta AE7150431-S Midnight Blue/RAL 5011, Semi Gloss, TGIC free Polyester Powder Coat
xxx-xxx-N17(-xxx)	Steel, electro-galvanized, painted flat black	Zinc Coated Per A879/A879M-04 by the Electrolytic Process for Applications Requiring Designation of the Coating Mass on Each Surface Morton Thiokol <b>80-7001</b> Corvel Solar Black TGIC Polyester Powder Coat Cardinal #E300-BK147 Flat Black Epoxy CSC Powder Coating Ltd D-7697 (China for BBY)
xxx-xxx-P1 (-xxx)	Steel, painted ASA-61 semi-gloss gray	Tiger Drylac 49/70050 ASA-61 Gray Polyester Powder Coat (UL Recognized) Cardinal T008-GR736 Gray Powder Coat (UL Recognized)
xxx-xxx-P2 (-xxx)	Steel, painted gray leatherette	Protech HT212A4 (was H1000AT4) Textured Gray Hybrid Powder Coat (UL Recognized)
xxx-xxx-P3 (-xxx)	Steel, painted semi-gloss black	Protech DS311N12 (was PS311N1) Semi Gloss Black TGIC Polyester Powder Coat (UL Recognized) (for Burnaby) Cardinal T002 – BK08 TGIC Polyester Black Powder Coat
xxx-xxx-P4 (-xxx)	Steel, painted light tan (for Albar/C-Cor)	Glidden Pulvalure 6DI06 Lite Tan TGIC Polyester Powder Coat (UL Recognized)
xxx-xxx-P5 (-xxx)	Steel, painted fieldstone tan (for TRIUMF)	Sherwin-Williams 47982 Code F2NG59 Fieldstone Tan
xxx-xxx-P6 (-xxx)	Steel, painted midnight blue	Protech PS211B2 (was P100B2) Midnight Blue TGIC Polyester Powder Coat (UL Recognized)
xxx-xxx-P7 (-xxx)	Steel, painted platinum (for Compower)	Protech HS412H36 (was H1000H36) Platinum Hybrid Powder Coat (UL Recognized)



xxx-xxx-P8 (-xxx)	Steel, painted textured fog grey	TCI 6132-7047 Textured hybrid epoxy fog grey Powder coating
xxx-xxx-P9 (-xxx)	Steel, painted textured black	Protech ET442N2 (was E2000NT2) Textured Black Epoxy Powder Coat
xxx-xxx-P10 (-xxx)	Steel, painted Central Office White	Dupont Powder Coatings Central Office White UFW-563-S3, Urethane Powder Coat
xxx-xxx-P11 (-xxx)	Steel, painted Charcoal Gray	Tiger Drylac 49/80076 TGIC Polyester Powder Coat (for Burnaby)
xxx-xxx-P12 (-xxx)	Steel, painted Semi-Gloss Texture Black ATL finish code 243	Cardinal C241-BK01 - Polyester Powder Coat, (TGIC free)
xxx-xxx-R1 (-xxx)	Steel, painted BTS light gray (for Northern Telecom)	Northern Telecom Specification NPS-90164 and Northern Telecom Observational Standard S-30480
xxx-xxx-R2 (-xxx)	Steel, painted sea foam green	Valspar IF2411 Seafoam TGIC Polyester Powder Coat Morton 20-6023 Corvel Green Polyester Powder Coat Tiger Drylac 249/52200 Alpha Sea Foam Green Polyester Powder Coat
xxx-xxx-R3 (-xxx)	Steel, painted white	Cardinal T009-WH11 Horizon White Powder Coat
xxx-xxx-R4 (-xxx)	Steel, painted flat black	Morton Thiokol <b>80-7001</b> Corvel Solar Black TGIC Polyester Powder Coat Cardinal #E300-BK147 Flat Black Epoxy CSC Powder Coating Ltd D-7697 (China for BBY)
xxx-xxx-R5 (-xxx)	Steel, painted textured gray	Protech PC 4732 Blue-Gray Textured Hybrid (Epoxy/Polyester) Powder Coat *Protech PC 3541 Blue-Gray Textured Hybrid (Epoxy/Polyester) Powder Coat *H.B. Fuller Kativo IF-2913 (was 3449-12B) Blue-Gray Textured TGIC Polyester Powder Coat *H.B. Fuller Kativo 3150-76B Blue-Gray Textured Urethane Powder Coat (* Do not re-order; paint shop may use up existing stock before switching to PC 4732.)
xxx-xxx-R6 (-xxx)	Steel, painted electrical gray	Protech PS211A4 (was P100A4) Electrical Gray TGIC Polyester Powder Coat (UL Recognized)
xxx-xxx-R7 (-xxx)	Steel, painted "CFR gray"	Cardinal H312-BG160 Beige Textured Epoxy Polyester Hybrid Powder Coat Tiger Drylac 209/72250 Textured Light Gray Epoxy Polyester Hybrid Powder Coat
xxx-xxx-R8 (-xxx)	Steel, painted designer beige	Valspar IF-2407 Designer Beige Urethane Powder Coat



xxx-xxx-R9 (-xxx)	Steel, painted charcoal gray (for MPR)	Tiger Drylac Series 209-71390 (ATM Gray) Fine Textured Gray Polyester Powder Coat
xxx-xxx-R10 (-xxx)	Steel, painted semi gloss beige	Cardinal T241-BG414 Beige Polyester TGIC Powder Coating Semi Gloss Texture
xxx-xxx-R11(-xxx)	Steel, painted quartz gray	Cardinal industrial grey quartz (T243GR301) TGIC polyester
xxx-xxx-R12(-xxx)	Steel, painted textured black	Cardinal T241-BK59 polyester GIC powder coat
xxx-xxx-T1 (-xxx)	Steel, painted semi-gloss green	Tiger Drylac Series 49 Semi-Gloss RAL6021
xxx-xxx-T2 (-xxx)	Steel, painted safety red	DOW Plastics ENVELON Series Safety Red (SR) Powder Coat
xxx-xxx-T3 (-xxx)	Steel, painted high-temp flat black	Flame Control 450C High-Temp Flat Black
xxx-xxx-T4 (-xxx)	Steel, painted Hammertone gray	Protech HV 212 A9 Hammertone Gray Hybrid Powder Coat
xxx-xxx-T5 (-xxx)	Steel, painted silver gray	Protech HM 212 AS4 Silver Gray Hybrid Powder Coat
xxx-xxx-T6 (-xxx)	Steel, painted zinc primer gray	Tiger Drylac 69/90350 Zinc Rich Primer Powder Coat
xxx-xxx-T7 (-xxx)	Steel, painted anti-graffiti sea foam green	Tiger Drylac Series 248/50020 Anti-Graffiti Sea Foam Green Hybrid Powder Coat
xxx-xxx-T8 (-xxx)	Steel, painted anti-graffiti ASA-61 semi-gloss gray	Tiger Drylac Series 248/70050 Anti-Graffiti ASA-61 Semi-gloss Gray Hybrid Powder Coat
xxx-xxx-T9 (-xxx)	Steel, painted forest green	Tiger Drylac Series 249/52690 Pantone 357C Green TGIC Polyester Powder Coat
xxx-xxx-T10 (-xxx)	Steel, painted textured, semi-gloss, Alpha Blue.	Cardinal C241-BL501, LS# 12488 Alpha Blue, Textured, Semi-Gloss, TGIC free Polyester Powder Coat Dupont (Dongguan Dupont Huajia Performance Coatings Limited Company, China) Alesta AE7150431-S Midnight Blue/RAL 5011, Semi Gloss, TGIC free Polyester Powder Coat
xxx-xxx-U1 (-xxx)	Steel, painted pastel green	Tiger Drylac Series 249/52860 Smooth Green TGIC Polyester Powder Coat
xxx-xxx-U2 (-xxx)	Steel, painted almond	DuPont Alestra Almond PFT500S8, TGIC Polyester Powder Coat Tiger Drylac Series 39/15020 Semi-Gloss Powder Coat
xxx-xxx-U3 (-xxx)	Steel, painted hybrid gray	Tiger Drylac 459/70150 (was 449/71140) Cardinal GR1465-C004
xxx-xxx-U4 (-xxx)	Steel, painted Thermal plastic black	Plascoat PPA 571 ES, Black (RAL 9005)
xxx-xxx-U5 (-xxx)	Steel, painted Pine Green	Tiger Drylac Pine Green 49/52650 (RAL 6028)



xxx-xxx-U6 (-xxx)	Steel, painted Thermal plastic beige	Plascoat PPA 571 ES, Beige (222)
xxx-xxx-U7 (-xxx)	Steel, painted Light blue (for econolite)	Cardinal 6405-6842 Light Blue Polyurethane
xxx-xxx-U8 (-xxx)	Steel, painted Dark Blue (for econolite)	Cardinal TO32-BL64 Dark Blue TGIC Polyester Powder Coat
xxx-xxx-U9 (-xxx)	Steel, static charged spray paint flat black	Proprietary Paint: Hsing Jeng Fong Chem Paint Co. Ltd. (Guang Zhou)
xxx-xxx-U10 (-xxx)	Steel, Painted Dark Blue	Tiger Drylac 49423-90 (RAL 5022) Powder Coat
xxx-xxx-U11 (-xxx)	Steel, Painted Midnight Blue	Cardinal X002-BLW01541 RAL 5011 20% Gloss Powder Coat
xxx-xxx-V1 (-xxx)	Steel, zinc plated (0.0003" thick), plus bronze conversion, painted ASA-61 semi-gloss gray	<b>Must be RoHS-compliant</b> <u>Plating:</u> Zinc Plating Per ASTM B633-98, TYPE II Bronze, FE/ZN 8 <u>Paint:</u> Tiger Drylac 49/70050 ASA-61 Gray Polyester Powder Coat (UL Recognized) Cardinal T008-GR736 Gray Powder Coat (UL Recognized)
xxx-xxx-V2 (-xxx)	Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process, painted white	Zinc Plating: G90-Commercial Quality per ASTM A653/A653M-06 (for BBY) Painting: Hentzen P4156WPC White TGIC Polyester Powder Coat
xxx-xxx-V3 (-xxx)	Steel, Painted Sun Charcoal Gray	CARDINAL C241-GR663 sun Charcoal Gray Polyester Powder Coat
xxx-xxx-V4 (-xxx)	Steel, Painted Gray Quartz	Cardinal Industrial Gray Quartz (T243GR301) TGIC Polyester
xxx-xxx-V5 (-xxx)	Steel, E-Coating, Non-UV Resistant, Zinc Phosphate/Water Pretreatment, Black	POWERCRON 590-534 Black, Non-UV Resistant
xxx-xxx-V6 (-xxx)	Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process, painted seafoam green	Zinc Plating: G90-Commercial Quality per ASTM A653/A653M-06 (for BBY) Valspar IF2411 Seafoam TGIC Polyester Powder Coat Morton 20-6023 Corvel Green Polyester Powder Coat Tiger Drylac 249/52200 Alpha Sea Foam Green Polyester Powder Coat
xxx-xxx-V7 (-xxx)	Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process, painted textured fog grey	Zinc Plating: G90-Commercial Quality per ASTM A653/A653M-06 (for BBY) TCI 6132-7047 Textured hybrid epoxy fog grey Powder coating



xxx-xxx-W1 (-xxx)	Reserved	
xxx-xxx-W2 (-xxx)	Steel, zinc plated (0.0003" thick), plus bronze conversion, painted sea foam green	<p><b>Must be RoHS-compliant</b></p> <p><u>Plating:</u> Zinc Plating Per ASTM B633-98, TYPE II Bronze, FE/ZN 8</p> <p><u>Paint:</u> Valspar IF2411 Seafoam TGIC Polyester Powder Coat Morton 20-6023 Corvel Green Polyester Powder Coat Tiger Drylac 249/52200 Alpha Sea Foam Green Polyester Powder Coat</p>
xxx-xxx-W3 (-xxx)	Steel, zinc Plated (0.0008" thick), plus bronze conversion, painted sea foam green	<p><b>Must be RoHS-compliant</b></p> <p><u>Plating:</u> Zinc Plating Per ASTM B633-98, TYPE II Bronze, EXCEPTIONS: FE/ZN 20 (20 µm thick)</p> <p><u>Paint:</u> Valspar IF2411 Seafoam TGIC Polyester Powder Coat. Morton 20-6023 Corvel Green Polyester Powder Coat. Tiger Drylac 249/52200 Alpha Seafoam Green, Polyester Powder Coat. (For severe environments)</p>
xxx-xxx-W4 (-xxx)	Steel, zinc Plated (0.0010" thick), plus bronze conversion, painted sea foam green	<p><b>Must be RoHS-compliant</b></p> <p><u>Plating:</u> Zinc Plating Per ASTM B633-98, TYPE II Bronze, FE/ZN 25</p> <p><u>Paint:</u> Valspar IF2411 Seafoam TGIC, Polyester Powder Coat. Morton 20-6023 Corvel Green Polyester Powder Coat. Tiger Drylac 249/52200 Alpha Seafoam Green, Polyester Powder Coat. (For very severe environments)</p>
xxx-xxx-W5 (-xxx)	Steel, Zinc Plated (.0008 Thk.), plus bronze conversion, painted almond. (a.k.a. Bronze Irridite)	<p><b>Must be RoHS-compliant</b></p> <p><u>Plating:</u> Zinc Plating Per ASTM B633-98, TYPE II Bronze, EXCEPTIONS: FE/ZN 20 (20 µm thick)</p> <p><u>Paint:</u> DuPont Alestra Almond PFT500S8, TGIC Polyester Powder Coat (For severe environments)</p>



xxx-xxx-W6 (-xxx)	Steel, Zinc Plated (.0010 Thk.), plus bronze conversion, painted almond. (a.k.a. Bronze Irridite)	<p><b>Must be RoHS-compliant</b></p> <p><u>Plating:</u> Zinc Plating Per ASTM B633-98, TYPE II Bronze, FE/ZN 25</p> <p><u>Paint:</u> DuPont Alestra Almond PFT500S8, TGIC Polyester Powder Coat (For very severe environments)</p>
xxx-xxx-W7 (-xxx)	Steel, zinc plated (0.0008" thick), plus bronze conversion (a.k.a bronze irridite), Painted flat black.	<p><b>Must be RoHS-compliant</b></p> <p><u>Plating:</u> Zinc Plating Per ASTM B633-98, TYPE II Bronze, EXCEPTIONS: FE/ZN 20 (20 µm thick)</p> <p><u>Paint:</u> Morton Thiokol 80-7001 Corvel Solar Black TGIC Polyester Powder Coat. Cardinal E300-BK147 Flat Black Epoxy (For severe environments)</p>
xxx-xxx-W8 (-xxx)	Steel, Zinc plated (0.0010" thick), plus bronze conversion (a.k.a bronze irridite), painted flat black.	<p><b>Must be RoHS-compliant</b></p> <p><u>Plating:</u> Zinc Plating Per ASTM B633-98, TYPE II Bronze, FE/ZN 25</p> <p><u>Paint:</u> Morton Thiokol 80-7001 Corvel Solar Black TGIC Polyester Powder Coat Cardinal E300-BK147 Flat Black Epoxy (For very severe environments)</p>
xxx-xxx-W9 (-xxx)	Steel, zinc plated (0.0003" thick), plus bronze conversion, painted Midnight Blue	<p><b>Must be RoHS-compliant</b></p> <p><u>Plating:</u> Zinc Plating Per ASTM B633-98, TYPE II Bronze, FE/ZN 8</p> <p><u>Paint:</u> Cardinal X002-BLW01541 RAL 5011 20% Gloss Powder Coat</p>
xxx-xxx-W10 (-xxx)	Steel, zinc plated (0.0003" thick), plus bronze conversion, painted White	<p><b>Must be RoHS-compliant</b></p> <p><u>Plating:</u> Zinc Plating Per ASTM B633-98, TYPE II Bronze, FE/ZN 8</p> <p><u>Paint:</u> Cardinal T009-WH11 Horizon White Powder Coat</p>
xxx-xxx-W11 (-xxx)	Steel, zinc plated (0.0003" thick), plus bronze conversion, painted Pine Green	<p><b>Must be RoHS-compliant</b></p> <p><u>Plating:</u> Zinc Plating Per ASTM B633-98, TYPE II Bronze, FE/ZN 8</p> <p><u>Paint:</u> Tiger Drylac Pine Green 49/52650 (RAL 6028)</p>





xxx-xxx-W12	Steel, zinc plated (0.0003" thick), plus bronze conversion, painted "Generac" Beige	Powder Technology, Inc. #PT-TS95-TS35 Compartment Tan 2SD TGIC
xxx-xxx-X1 (-xxx)	NCFR Insulation Board painted high-temp black	painted xxx-xxx-T3 by Homasote Co was xxx-xxx-28
xxx-xxx-X2 (-xxx)	Brass, tin plated	was xxx-xxx-30
xxx-xxx-X3 (-xxx)	Glastic, painted ASA-61 semi-gloss gray	was xxx-xxx-27
xxx-xxx-X4 (-xxx)	Tin, bare (no finish)	was xxx-xxx-31
xxx-xxx-X5 (-xxx)	Phosphor Bronze, bare (no finish)	
xxx-xxx-X6 (-xxx)	Phosphor Bronze, tin plated	
<b>SECTION Y FOR STEEL WITH RoHS COMPLIANT PLATINGS/COATINGS</b>		
xxx-xxx-Y1 (-xxx) <b>DO NOT USE FOR NEW PARTS.</b> <b>USE -M6</b>	Steel, Zinc Plated (0.0002" Thick) plus clear conversion	Zinc Plating Per ASTM B633-98, TYPE III Clear, FE/ZN 5, Bright <b>Must be RoHS-compliant</b>
xxx-xxx-Y2 (-xxx)	Deleted	
xxx-xxx-Y3 (-xxx)	Deleted	
xxx-xxx-Y4 (-xxx)	Deleted	
xxx-xxx-Y5 (-xxx)	Deleted	
xxx-xxx-Y6 (-xxx) <b>DO NOT USE FOR NEW PARTS.</b> <b>USE -N11</b>	Steel, zinc plated (.0002 thick) plus black conversion	Zinc plating per ASTM B633-98, Type II, Black, FE/ZN 5 Semi-Bright <b>Must be RoHS-compliant</b>
xxx-xxx-Y7 (-xxx)	Deleted	
xxx-xxx-Y8 (-xxx)	Deleted	
xxx-xxx-Y9 (-xxx)	Deleted	
xxx-xxx-Y10 (-xxx)	Deleted	
xxx-xxx-Y11 (-xxx)	Deleted	
xxx-xxx-Y12 (-xxx)	Deleted	
xxx-xxx-Y13 (-xxx)	Deleted	
xxx-xxx-Y14 (-xxx)	Deleted	
xxx-xxx-11 (-xxx)	Copper, bare (no finish)	
xxx-xxx-12 (-xxx)	Copper, cadmium plated	
xxx-xxx-13 (-xxx)	Copper, tin plated	
xxx-xxx-14 (-xxx)	Copper, nickel plated	
xxx-xxx-15 (-xxx)	Copper, silver plated	





xxx-xxx-16 (-xxx)	Brass, bare (no finish)	
xxx-xxx-17 (-xxx)	Brass, cadmium plated	
xxx-xxx-18 (-xxx)	Brass, nickel plated	
xxx-xxx-19 (-xxx)	Copper, with silver immersion (a.k.a. silver wash)	
xxx-xxx-20 (-xxx) to xxx-xxx-99 (-xxx) (except xxx-xxx-26)	Reserved for assemblies that may have silkscreen requirements	
xxx-xxx-26 (-xxx)	Glastic, bare (no finish)	
xxx-xxx-27 (-xxx)	Reserved for assemblies that may have silkscreen requirements	Was "Glastic, painted ASA-61 semi-gloss gray" - now see xxx-xxx-X3
xxx-xxx-28 (-xxx)	Reserved for assemblies that may have silkscreen requirements	Was "NCFR Insulation Board painted xxx-xxx-T3 by Homasote Co." - now see xxx-xxx-X1
xxx-xxx-30 (-xxx)	Reserved for assemblies that may have silkscreen requirements	Was "Brass, tin plated" - now see xxx-xxx-X2
xxx-xxx-31 (-xxx)	Reserved for assemblies that may have silkscreen requirements	Was "Tin, bare (no finish)" - now see xxx-xxx-X4

## **Notes**

This information applies to 8-digit part numbers and 8-digit drawing numbers of format xxx-xxx-xx, and 11-digit part numbers of format xxx-xxx-xx-xxx.

Drawings for metal parts have "00" as the last two digits. Part numbers of parts manufactured from these drawings use the first six digits of the drawing number, and use the next two digits as a code that: (a) describes the material in general terms (in order to choose between material options, if applicable), and (b) specifies the finish, as shown in the table above. E.g. part number 567-035-A2 is produced from drawing number 567-035-00, in aluminum with a gold chromate conversion finish. Part number 567-035-P1 is also produced from drawing number 567-035-00, but in steel with an ASA-61 gray paint finish.

Consult the drawing for the exact material specification. The part number code does not differentiate between material grades (for example: utility grade aluminum and 6061 aluminum).

With 11-digit part numbers, the last three digits are a configuration number, which corresponds to a configuration number shown on the drawing.

## **Revisions History:**

\*NOTE: SEE REVISION BH OF THIS DOCUMENT FOR HISTORY PRIOR TO REVISION BJ