



Composite Materials Color Paste Catalog

PIGMENT PASTES · COLORANTS · ADDITIVES · MASTERBATCH

FORGING AHEAD · EXCELLENT QUALITY · INNOVATE

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About DENSON

COMPANY PROFILE



DENSON Functional Materials Co., Ltd. is a specialized manufacturer of high-performance pigment pastes, colorants, and functional additives for the composites, coatings, inks, and polymer industries. We operate two integrated divisions — **Enamel Color**, focused on nano-pigments, color concentrates, and ultra-high-temperature composite colorants; and **DENSON New Materials**, focused on dispersants, wetting agents, rheology additives, and thermal/conductive/electronic materials.

Quality Products

Premium imported pigments from BASF, Clariant, Lanxess, DIC, and Heubach; strict QC on every batch.

Competitive Pricing

In-house formulation and production keep costs controlled without compromising performance.

Fast Service

Rapid sampling, short lead times, and responsive technical support for global customers.

R&D Capability

Dedicated lab for custom color matching, application testing, and new product development.

OUR PRODUCT RANGE

- ▶ **Composite color pastes** — unsaturated polyester (UPR), epoxy (EP), polyurethane (PU), UV-curable, and high-temperature resin systems
- ▶ **Universal colorants** — resin-free solvent-based, water-soluble, and pure water-based pigment pastes
- ▶ **Functional pastes** — nano-pigment dispersions, photochromic/anti-counterfeit pigments, CNT/graphene pre-dispersions, thermal interface pastes
- ▶ **Masterbatch & additives** — PETG nano-pigment masterbatch, dispersants, defoamers, leveling agents, matting powders

Industries served: SMC/BMC/DMC composites, pultrusion, filament winding, RTM, gelcoats, marine, automotive, aerospace, wind energy, electronics encapsulation, UV coatings & inks, 3D printing, artificial leather, and construction.

Product Catalog

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Note: All product codes, pigment content, and color index references in this catalog correspond to DENSON standard grades. Custom color matching and private-label packaging are available upon request.

RFNC Series

RESIN-FREE SOLVENT-BASED UNIVERSAL COLOR PASTE

A resin-free, solvent-based universal pigment paste engineered for maximum compatibility across resin systems. The narrow particle-size distribution delivers excellent tinting strength, flocculation resistance, and storage stability.

KEY FEATURES

- ▶ **Resin-free design** — compatible with polyester, epoxy, PU, acrylic, and UV systems
- ▶ **Halogen-free formulations** — RoHS-compliant for electronics and export markets
- ▶ **High pigment loading** — up to 75% for cost-effective dosing
- ▶ **Excellent dispersion** — fine grind for smooth, speckle-free finishes

APPLICATIONS

- ▶ Industrial & decorative coatings
- ▶ Screen & gravure inks
- ▶ Pressure-sensitive adhesive coatings
- ▶ Silicone / acrylic / PU adhesives
- ▶ PETG / TPU 3D printing (FDM/CDLP)
- ▶ Artificial leather & synthetic leather
- ▶ Plastics coloring & masterbatch

STANDARD COLOR RANGE

	RFNC-1007 Standard Black BK7	45%	Halogen-Free
	RFNC-1004 Full-Coverage Insulating ...	55%	Halogen-Free
	RFNC-1005 Nano Black	30%	Halogen-Free
	RFNC-8227T Medium Yellow PY180	45%	Halogen-Free
	RFNC-8229T Golden Yellow PY139	30%	Halogen-Free
	RFNC-8223T High-Trans Golden Yello...	25%	Halogen-Free
	RFNC-8370 Bright Red PR170	45%	Halogen-Free
	RFNC-8380T Chinese Red PR254	45%	
	RFNC-8322T Peach Red PR122	30%	Halogen-Free
	RFNC-9002 Special White PW6	80%	Halogen-Free
	RFNC-8377T Brilliant Carmine PR177	30%	Halogen-Free
	RFNC-8650 Red-Shade Blue PB15:1	45%	Halogen-Free
	RFNC-8660T Violet Blue PB60	30%	Halogen-Free
	RFNC-8523T Violet PV23	30%	
	RFNC-8607 Color Green PG7	45%	
	RFNC-1006 Special Black BK7	35%	Halogen-Free
	RFNC-1003 Blue-Black BK7	40%	Halogen-Free
	RFNC-5000 Ultra Black BK7	30%	Halogen-Free
	RFNC-8229 Golden Yellow PY181	45%	Halogen-Free
	RFNC-8225 Brilliant Yellow PY151	45%	Halogen-Free
	RFNC-8373 Orange PO73	45%	Halogen-Free
	RFNC-8360 Large Red PR170	45%	Halogen-Free
	RFNC-8368 Purple-Red PV19	40%	Halogen-Free
	RFNC-8371T Cromophtal Orange PO71	35%	Halogen-Free
	RFNC-8367 Cromophtal Red PR177	45%	Halogen-Free
	RFNC-8653 Color Blue PB15:3	45%	Halogen-Free
	RFNC-8655 Green-Shade Blue PB15:4	45%	Halogen-Free
	RFNC-8537 Halogen-Free Violet PV37	35%	Halogen-Free
	RFNC-8608 Halogen-Free Green (Mixe...	45%	Halogen-Free

Note: "Halogen-free" indicates no intentional addition of halogen-containing raw materials. Trace halogens may be present due to environmental factors; actual detection standards apply.

FLUV Series

UV/EB-CURABLE PIGMENT PASTE

100%-solids, solvent-free pigment paste dispersed in TPGDA (tripropylene glycol diacrylate) monomer. Average particle size D50 $\approx$ 200 nm ensures high transparency, vivid color, and minimal effect on cure speed.

KEY FEATURES

- **Zero VOC** — no solvents, fully reactive in UV/EB systems
- **Nano-fine grind** — D50 $\approx$ 200 nm for jetness and transparency
- **Low inhibition** — minimal impact on photoinitiator efficiency
- **Broad compatibility** — works with acrylate, epoxy, and urethane-acrylate oligomers

APPLICATIONS

- UV offset & screen inks
- UV flexo & gravure inks
- UV coatings & varnishes
- UV metal decorating (iron printing)
- UV adhesives & pressure-sensitive coatings
- Nail gel polish & UV cosmetics
- UV 3D printing resins (SLA/DLP)
- EB-curable coatings

STANDARD COLORS

	FLUV-1305 Special Black (Imported CB)	30%	
	FLUV-5205 Peach Red (Nano)	40%	Halogen-Free
	FLUV-3905 Purple-Red (Nano)	40%	Halogen-Free
	FLUV-2985 Medium Yellow (Nano)	40%	Halogen-Free
	FLUV-6530 Turquoise Blue (BASF)	30%	Halogen-Free
	FLUV-3205 Bright Orange (Nano)	30%	
	FLUV-2905 Golden Yellow (Nano)	40%	Halogen-Free
	FLUV-3785 Large Red (Nano)	60%	Halogen-Free
	FLUV-2975 Brilliant Yellow (Nano)	30%	Halogen-Free
	FLUV-3805 Chinese Red (Nano)	40%	
	FLUV-595 Special White (Nano)	60%	
	FLUV-5305 Permanent Violet	20%	
	FLUV-6600T Violet Blue (Nano)	30%	Halogen-Free
	FLUV-2600 Primary Yellow	30%	
	FLUV-3500 Bright Red	30%	Halogen-Free
	FLUV-6700 Color Green (BASF)	30%	

FLUORESCENT UV COLORS

	FLUV-1801 Fluorescent Blue	30%	
	FLUV-1804C Fluorescent Orange-Yellow	30%	
	FLUV-1805 Fluorescent Red	40%	
	FLUV-1807 Fluorescent Peach Red	30%	
	FLUV-1811 Fluorescent Orange-Red	40%	
	FLUV-1814 Fluorescent Violet	30%	
	FLUV-1802 Fluorescent Green	30%	
	FLUV-1804R Fluorescent Orange (Red Shade)	30%	
	FLUV-1806 Fluorescent Pink	40%	
	FLUV-1809 Fluorescent Yellow	60%	
	FLUV-1812 Fluorescent Bright Red	30%	

NA Series

RESIN-FREE HIGH-TRANSPARENCY NANO COLOR PASTE

A resin-free nano-pigment dispersion with an average particle size of **90 nm**, achieving Blue Wool Scale **Grade 8 lightfastness** and guaranteed **5-year outdoor durability** without fading. Designed for optical-grade and high-end applications where transparency and color purity are critical.

KEY FEATURES

- ▶ **90 nm particle size** — exceptional transparency and gloss
- ▶ **Grade 8 lightfastness** — 5+ years exterior durability
- ▶ **Resin-free** — universal compatibility across resin systems
- ▶ **Low haze** — suitable for optical films and clear coats

APPLICATIONS

- ▶ Optical films (PET / PC / BOPET)
- ▶ Electronic packaging & display films
- ▶ High-end automotive & industrial coatings
- ▶ Transparent ink printing
- ▶ Functional plastics & engineering polymers
- ▶ Optical fiber & photonic materials

Recommended additive: DS-3750 / DS-3760 non-silicone leveling agent for superior flow and substrate wetting in nano-pigment systems.

STANDARD COLOR RANGE

	180 Transparent Medium Yellow	30%	Halogen-Free
	254 Bright Red (Ferrari Red)	30%	
	122 Transparent Peach Red	30%	Halogen-Free
	1139 Transparent Golden Yellow	30%	Halogen-Free
	1154 Transparent Color Blue	30%	Halogen-Free
	19B HF Transparent Purple-Red	30%	Halogen-Free
	Bk7 Transparent Nano Black Paste	30%	Halogen-Free
	23 Transparent Permanent Violet	30%	
	156 Sky Blue	30%	Halogen-Free
	60 Transparent Violet Blue	30%	Halogen-Free
	1701 Nano Transparent Orange	30%	Halogen-Free
	149 Transparent Bright Red*	30%	Halogen-Free
	177 Transparent Brilliant Carmine	30%	Halogen-Free
	150 Transparent Golden Yellow	30%	Halogen-Free
	PG7 Transparent Emerald Green	30%	
	179 Transparent Maroon Red*	30%	Halogen-Free
	37 Transparent Violet*	30%	Halogen-Free
	BK7B Transparent Blue-Shade Black*	30%	Halogen-Free
	19 Transparent Purple-Red	30%	Halogen-Free
	2817 Transparent Champagne Gold	50%	Halogen-Free
	1916 Transparent Gold	50%	Halogen-Free

PUE Series

POLYETHER POLYOL PIGMENT PASTE FOR POLYURETHANES

Pigment paste dispersed in polyether polyol, specifically formulated for coloring polyurethane systems. Excellent compatibility with MDI/TDI-based PU formulations; does not interfere with catalyst balance or cure kinetics.

KEY FEATURES

- **Polyether polyol carrier** — fully compatible with PU resin matrices
- **Non-reactive pigments** — no effect on gel time or NCO/OH ratio
- **Good lightfastness** — suitable for interior and exterior PU parts
- **Low viscosity** — easy metering and mixing in production

STANDARD COLORS

	PUE-1200 Special Black		PUE-902D Special White (75% pigment)	75%
	PUE Medium Gray		PUE-32 Organic Bright Orange	
	PUE-36 Large Red		PUE-37 Bright Red	
	PUE-38 Chinese Red		PUE-39 177 Heat-Resistant Rose Red	
	PUE-52 Peach Red		PUE-21 138# High-Performance Bright Yellow	
	PUE-26 Organic Yellow		PUE-25 Lemon Yellow	
	PUE-28 Golden Yellow		PUE-29 139# High-Performance Golden Yellow	
	PUE-65 Blue		PUE-67 Green	
	PUE-53 Violet			

FLUORESCENT COLORS (PUE-800C SERIES)

	PUE-809C Fluorescent Lemon Yellow		PUE-8001 Fluorescent Medium Yellow	
	PUE-8002 Fluorescent Golden Yellow		PUE-811C Fluorescent Orange-Red	
	PUE-804C Fluorescent Orange-Yellow		PUE-804R Fluorescent Orange	
	PUE-805C Fluorescent Red		PUE-812C Fluorescent Bright Red	
	PUE-8004 Fluorescent Bright Magenta		PUE-806C Fluorescent Pink	
	PUE-807C Fluorescent Purple-Red Magenta		PUE-8008 Fluorescent Purple-Red	
	PUE-8003 Fluorescent Violet		PUE-814C Fluorescent Violet	
	PUE-8006 Fluorescent Color Blue		PUE-801C Fluorescent Blue	
	PUE-8005 Fluorescent Apple Green		PUE-802C Fluorescent Green	
	PUE-8007 Fluorescent Color Green			

UP Series

MODIFIED POLYESTER COLOR PASTE FOR COMPOSITES

Modified polyester-based pigment paste designed for unsaturated polyester resin (UPR) systems. Compatible with orthophthalic, isophthalic, and DCPD-modified polyesters, as well as MMA-based acrylic resins. Formulated with imported high-performance pigments from BASF, Lanxess, Clariant, DIC, and Heubach.

KEY FEATURES

- ▶ **UPR-optimized** — does not inhibit peroxide cure or affect gel time
- ▶ **Weathering grades** — up to 10-year outdoor durability options
- ▶ **FDA / food-contact grades** — compliant for sanitary ware and food-contact applications
- ▶ **Halogen-free** — RoHS-compliant standard range

APPLICATIONS

- ▶ SMC / BMC / DMC compression molding
- ▶ Gelcoats & in-mold coatings (marine, sanitary)
- ▶ Pultruded profiles & grating
- ▶ Filament winding (pipes, tanks, vessels)
- ▶ RTM & vacuum infusion
- ▶ Cultured marble & solid surface
- ▶ Automotive composite parts
- ▶ Buttons, ornaments, cast resin crafts
- ▶ Adhesives & instant adhesives (cyanoacrylate)

STANDARD COLOR RANGE

	UP866 Special Black	30%		UP867 Blue-Shade Special Black	35%
	Imported A White Imported TiO2	45%		UP800 Special White (Imported TiO2)	75%
	Intl Iron Yellow Lanxess Iron Oxide Yellow	40%		Intl Bright Iron Red Lanxess Iron Oxide Red	40%
	UP802 Brilliant Yellow (Eco Organic)	3-yr		UP804 Coated Bismuth Vanadate Yellow (350°C)	5-yr
	UP828 BASF Large Red 185	3-yr		UP838 HF Large Red 177 (Food Grade)	Food
	UP805 Golden Yellow (BASF)	5-yr		UP832 French Holliday Ultramarine	Import
	UP830 Rose Red (Korean Import)	3-yr		UP827 Purple-Red (German Import)	5-yr
	UP829 Peach Red (DIC Japan)	3-yr		UP826 Brilliant Red (High-Perf Chinese Red)	3-yr
	UP833 Color Green (FDA Organic)	5-yr		UP831 Color Blue (FDA Organic)	5-yr
	UP803 Medium Yellow (Clariant H3G)	3-yr		UP825 Orange-Red (Imported Fresh Orange)	2-yr
	UP835 Orange-Red (Outdoor 280°C)	2-yr		UP855 Permanent Violet (DIC Japan)	3-yr
	UP856 HF Violet (No.19 Swiss Import)	3-yr			

Pigment sources: Standard grades use imported pigments from BASF (Germany), Lanxess (Germany), Clariant (Switzerland), DIC (Japan), and Heubach (Germany). Domestic pigment alternatives available on request for cost-sensitive applications.

SEP / EP Series

ELECTRONIC-GRADE & STANDARD EPOXY RESIN COLOR PASTE

SEP Electronic-Grade Epoxy Color Paste: Solvent-free, narrow particle distribution, does not affect epoxy cure. Excellent migration resistance and insulation stability. Formulated for electronic potting, LED encapsulation, PCB conformal coating, power modules, component encapsulation, dry-type transformers, epoxy-carbon fiber composites, and aramid fiber ballistic materials.

SEP ELECTRONIC GRADE

	SEP988 Special Black (Imported CB)	15%
	SEP-9631 Epoxy Color Blue	30%
	SEP White Epoxy White PW6	50%
	SEP-9673 Epoxy Color Green	25%
	SEP-9202 Epoxy Brilliant Yellow	25%
	SEP-955 Epoxy Violet	15%
	SEP-9205 Epoxy Golden Yellow	25%
	SEP-3130 Epoxy Iron Yellow	65%
	SEP-9328 Epoxy Large Red	25%
	SEP-3190 Epoxy Iron Red	65%
	SEP-9326 Epoxy Bright Red	30%
	EP926 Bright Red (HP Chinese Red)	3-yr
	EP927 Purple-Red (DIC Japan)	3-yr Halogen-Free
	EP931 Color Blue (BASF)	5-yr Halogen-Free
	EP973 Color Green (BASF)	5-yr
	EP956 Violet (No.19 Swiss Import)	3-yr Halogen-Free
	Intl Bright Iron Red Lanxess Iron Oxide Red	70%

EP STANDARD EPOXY GRADE

	EP966 Special Black (Cabot CB)	30%	Halogen-Free
	EP988 Special Black (Imported CB)	15%	Halogen-Free
	EP White Imported TiO2 White	50%	
	EP900 Special White (Imported TiO2)	75%	Halogen-Free
	EP902 Original Yellow (Clariant)	3-yr	Halogen-Free
	EP903 Medium Yellow (Clariant HG)	3-yr	Halogen-Free
	EP905 Golden Yellow (BASF)	5-yr	Halogen-Free
	EP904 Bismuth Vanadate Yellow (BASF)	5-yr	Halogen-Free
	EP925 Orange-Red Bright Orange	2-yr	Halogen-Free
	EP1505 Orange-Red (Eco Organic)		Indoor
	EP923 Large Red (Eco Organic)		Indoor
	EP928 Large Red (Clariant)	3-yr	Halogen-Free
	6B Rose Red (Imported High-Gloss)		Indoor
	EP929 Peach Red (Clariant PINK)	3-yr	Halogen-Free
	EP932 Holliday Ultramarine		Imported
	EP955 Permanent Violet (DIC)	3-yr	
	Intl Iron Yellow Lanxess Iron Oxide Yellow	65%	

Note: "Halogen-free" indicates no intentional addition of halogen-containing raw materials. Actual halogen content should be verified by testing per applicable standards. Weathering years are estimated under standard outdoor exposure conditions.

DP Series

RESIN-FREE HIGH-TEMPERATURE COLOR PASTE (800–1000 °C)

An innovative resin-free formulation that overcomes the carbonization limit of conventional resin-bound color pastes. Using a polymeric dispersant as the carrier, the pigment remains stable at **800–1000 °C**; the carrier fully carbonizes above 450 °C while the inorganic pigment retains its color, saturation, and brightness.

APPLICATION AREAS

- ▶ **PEEK materials** — high-temperature engineering plastics processed at 350–400 °C; does not affect PEEK mechanical or chemical properties
- ▶ **Inorganic silicone products** — high-temp seals, insulation components
- ▶ **Fluororubber** — aerospace and automotive seals requiring heat resistance
- ▶ **Fluorosilicone products** — combines fluororubber and silicone benefits
- ▶ **Refractory materials** — fire bricks, fire-resistant coatings
- ▶ **High-temperature adhesives** — stable coloring without affecting bond strength

COLOR RANGE

	DP-Co Black 27 Inorganic Co-Cr Black	1000°C
	DP-Co Blue 2805 Inorganic Co Aluminate Blue	1000°C
	DP-GN Cr Oxide Green Inorganic Green	1000°C
	Cu-Cr Black 5800 Cu-Cr Spinel Black	800°C
	DP-Co Blue Inorganic Complex Blue	800°C
	DP-Co Green Inorganic Co-Cr Green	800°C
	Mn-Fe Black 1000 Mn-Fe Spinel Black	800°C
	DP-Ti-Cr Yellow Ti-Cr-Sb Complex Oxide	800°C
	DP-Persimmon Red Cerium Sulfide Red	800°C
	DP-Cd Red 160 Inorganic Cd Sulfoselenide	800°C
	DP-Co Violet Inorganic Cobalt Violet	500°C



Technical note: DP series uses only inorganic complex oxide pigments (spinel, rutile, hematite structures) with known high-temperature stability. Temperature ratings indicate maximum continuous service temperature.

FLTY Series

OIL-BASED UNIVERSAL COLOR PASTE / FLTY SYSTEM

Pre-dispersed pigment paste using a universal resin carrier. The narrow particle-size distribution provides excellent incorporation, broad resin compatibility, and anti-flooding performance that exceeds comparable merchant products. The high pigment-to-binder ratio delivers superior hiding power at lower addition levels.

TYPICAL APPLICATIONS

- ▶ **Industrial coatings:** equipment finishing, EV touch-up paints, hardware coatings
- ▶ **Baking enamels:** zinc/magnesium alloy high-gloss baking finishes
- ▶ **Wood coatings:** furniture and flooring stains (transparent shades)
- ▶ **Plastics coloring:** ABS, PS surface coating and masterbatch
- ▶ **Ink industry:** screen inks, glass/back-panel ink tinting
- ▶ **Decorative coatings:** aluminum ceiling matte/semi-gloss finishes

BLACK & WHITE RANGE

	*FLTY-1000 Universal Nano Black	20%
	FLTY-1300 Universal Special Black 6	15%
	FLTY-1009 Thermoset Acrylic Blue-Black	20%
	FLAC-1100 Thermoplastic Black BK7	20%
	FLAC-105 Thermoplastic Blue-Black Bk2	22%
	FLTY-313 Iron Yellow PY42	60%
	FLTY-190 Iron Red PR101	65%
	FLAC-1916 Transparent Iron Yellow PY42	45%
	FLAC-2817 Transparent Iron Red PR101	45%
	FLTY-618 Medium Chrome Yellow	60%
	FLTY-811 Lemon Chrome Yellow	60%
	FLTY-902H Universal White Paste	75%
	FLTY-706 High-Temp Polyester White	75%

COLOR RANGE (CONTINUED)

	FLTY-2500 Lemon Yellow PY81	25%
	FLTY-2700 Medium Yellow PY55	25%
	FLTY-2900 BASF 3RLN Golden Yellow	25%
	FLTY-3200 Orange-Red PO34	25%
	FLTY-3500 Bright Red 48:3	25%
	FLTY-3600 Bright Red F5RK	30%
	FLTY-3800 Chinese Red 254	30%
	FLTY-5200 Peach Red PR122	20%
	FLTY-6500 Color Blue PB15:3	30%
	FLTY-2600 Primary Yellow PY14	30%
	FLTY-2800 Golden Yellow PY83	20%
	FLTY-3100 Bright Orange PO16	25%
	FLTY-6028 Royal Blue PB29	50%
	FLTY-3132 Bright Red PY21	25%
	FLTY-3700 Bright Red F3RK	30%
	FLTY-3770 Purple-Red PR177	15%
	FLTY-5300 Permanent Violet V23	15%
	FLTY-6700 Color Green PG7	25%

WT Series

WATER-SOLUBLE & PURE WATER-BASED COLOR PASTE

Two complementary water-based colorant lines: **water-soluble** (water + alcohol-ether co-solvent) for faster drying and better low-temperature stability; and **pure water-based** (water only, zero VOC) for the highest environmental compliance.

Parameter	Water-Soluble	Pure Water-Based
Dispersion medium	Water + alcohol ether	Water only (no solvents)
Environmental	Good (Low VOC)	Excellent (Zero / ultra-low VOC)
Compatible systems	Water-based + semi-water-based	Pure water-based only
Low-temp stability	Good	Average
Film-forming aid	Stronger	Weaker
Typical uses	Semi-water wood coatings, industrial water-based, cold-region architectural, high-end leather finishing	Children's toy coatings, food-contact paper coloring, low-VOC interior latex, water-based stationery inks

Water-soluble benefits: Faster drying in high humidity; lowers freezing point (stable at -5 to -10 °C); broader compatibility with pure and semi-water-based systems (PU, epoxy).

Usage tip: Pre-dilute paste 1:2 or 1:1 with deionized water before adding to the base. This improves gloss and compatibility.

COLOR RANGE

	WT-1300 Standard Black BK7	35%		WT-1900 Special Black	35%
	WT-5740 Medium Yellow PY74	35%		WT-5750 Bright Yellow PY151	35%
	WT-5710 Weather-Resistant Lemon Yellow PY151	60%		WT-5070 High-Transparency Green PG7	35%
	WT-5153T Emerald Blue PB15:3	35%		WT-5028 Royal Blue PB15:6	35%
	WT-5108 Phthalo Blue PB28	35%		WT-706W Titanium White PW06	65%
	GT-W996 Pure Water-Based White	65%		WT-5830 Golden Yellow PY83	25%
	WT-5830T Transparent Golden Yellow PY83	25%		WT-5170 Bright Red PR170	35%
	WT-5173 Bright Red PR170	35%		WT-5250T Transparent Bright Red PR254	28%
	WT-5177T Transparent Bright Red PR177	35%		WT-5130 Orange PO13	35%
	GT6017 Standard Black Pure Water-Based PBK7	45%		GT6017 Standard Black (Pure Water-Based PBK7)	45%
	BK7H Special Black (Pure Water-Based Blue Shade)	40%		WT-5720 Bright Yellow PY151	30%
	WT-5042T Transparent Iron Yellow PR42	45%		WT-5101T Transparent Bright Red PR101	45%
	WT-5200T Transparent Peach Red PY122	35%		WT-5206 Purple-Red PY146	28%
	WT-5230 Transparent Violet PV23	28%		WT-5730 Weather-Resistant Orange PO73	35%

UPR Series

UNSATURATED POLYESTER RESIN COLOR PASTE

Colorant based on unsaturated polyester resin carrier, dispersed with high-concentration organic and inorganic pigments. Combines coloring function with substrate compatibility. Does not affect cure, gel time, or mechanical properties of the finished composite.

APPLICATIONS

- ▶ **FRP products:** glass-reinforced pipes, storage tanks, yacht/boat hulls
- ▶ **UPR molded plastics:** buttons, ornaments, electrical housings, compression-molded parts
- ▶ **Artificial stone / solid surface:** cultured marble, quartz stone coloring
- ▶ **Coatings & adhesives:** unsaturated polyester wood coatings, anti-corrosion coatings



COLOR RANGE

 UPR Standard White	 UPR Art Green (G02)
 UPR A White (Imported)	 UPR Phthalo Green (G01)
 UPR Standard Black	 UPR 477C Coffee Brown
 UPR UP Special Black	 UPR 4711 Light Coffee
 UPR Light Gray (B03)	 UPR 2705 Lotus Violet
 UPR 7467C Ice Blue	 UPR 5015 Blue
 UPR Rose Red RP03	 UPR Tiffany Blue 640
 UPR 4010 Red	 UPR Dark Purple
 UPR Water Pink 707C	 UPR 420 Iron Yellow (Oc...)
 UPR Lake Green (BG02)	 UPR Iron Red (R01)
	 UPR Rouge Pink 169C
	 UPR Cream Yellow (Y03)
	 UPR Jy63305 Crystal Go...
	 UPR Large Red (R03)
	 UPR Bright Red (R02)
	 UPR Y02 Lemon Yellow
	 UPR Light Lake Green
	 UPR Rose Red (RP03)
	 UPR Dark Brown
	 UPR Pink Orange 2003

Black Paste Collection

OIL-BASED · WATER-BASED · BLACK ESSENCE

High-concentration black colorants formulated around carbon black and inorganic black pigments. Performance (jetness, weatherability, compatibility) is determined by pigment type and carrier system. Select the matching grade for your resin chemistry and indoor/outdoor requirement.

OIL-BASED BLACK PASTES

Drying speed, water resistance, and weatherability matched to oil-based systems. For wood coatings, oil-based inks, plastics coloring, and leather processing.

	*FLTY-1000 Universal True Black	20%
	FLTY-1300 Universal Special Black 6	15%
	FLTY-1009 Thermoset Acrylic Blue-Black	20%
	FLAC-1100 Thermoplastic Acrylic Black	20%
	FLAC-105 Thermoplastic Blue-Black	20%
	RFNC-1007 Resin-Free Standard Black	45%
	RFNC-1006 Resin-Free Special Black	35%
	RFNC-1003 Resin-Free Blue-Black	40%
	RFNC-1005 Resin-Free National Standard Black	30%
	RFNC-1004 Resin-Free Full-Coverage Insulating Black	55%
	FLUV-1305 UV Special Black	30%
	RFNC-5000 Resin-Free Ultra Black (Halo...)	30% Halogen-Free
	EP-966 Epoxy True Black	30%
	EP-988 Epoxy Special Black	15%
	Mn-Fe Black 1000 Manganese Iron Black	20%
	Cu-Cr Black 5800 Copper Chrome Black (800°C)	20%
	DP-Cobalt Black 27 Cobalt Chrome Black (1000°C)	15%

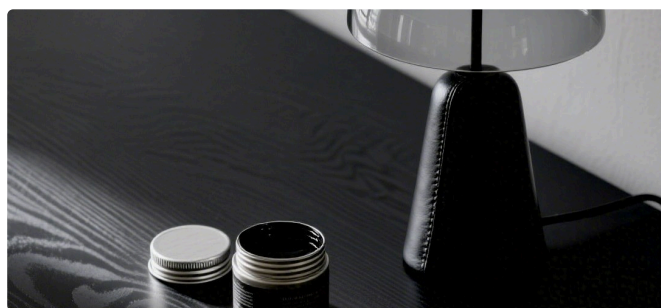
WATER-BASED BLACK PASTES

For architectural coatings, water-based wood finishes, water-based inks (packaging, paper), water-based adhesives, art colors, and textile printing.

	WT-1300W Water-Soluble Black Paste	35%
	GT-6017 Pure Water-Based Black Paste	45%
	BK7H Pure Water-Based Special Black (Blue Shade)	45%
	WT-1900W Water-Soluble Special Black	35%

APPLICATIONS

- **Coatings:** interior/exterior wall paints, automotive finishes, industrial anti-corrosion coatings
- **Adhesives & sealants:** black silicone sealants, black rubber sprays — color without affecting adhesion
- **Plastics & rubber:** toys, molded rubber goods
- **Ink & printing:** core pigment for black oil inks — books, packaging



OILY BLACK ESSENCE

Transparent/semi-transparent black dyes for oil-based systems: furniture, wood flooring, plastic spraying, resin crafts, glass/metal foil inks, and leather topcoats.

	DS-B128 Pure Black 55	35%
	DS-B104 Blue-Black 34	35%
	DS-B120 Red-Black 27	35%

TG Series

NANO-PIGMENT PROCESS PETG COLOR MASTERBATCH

Nano-pigment process PETG masterbatch for coloring all types of PETG products. Uses all-organic pigments with no dyes and excellent solvent resistance, preventing color migration and bleeding in cosmetic and food-contact packaging.

APPLICATION AREAS

- **Packaging:** food containers, cosmetic bottles, pharmaceutical packaging
- **Consumer goods:** toys, tableware, stationery, 3D printing filaments
- **Construction:** decorative panels, pipes, profiles
- **Electronics:** component housings, electrical accessories

AVAILABLE COLORS

	TG-1160 Sky Blue (all-organic, dye-free, solvent-resistant)
	TG1154 Purple (all-organic, dye-free, solvent-resistant)
	TG1153 Peach Red (all-organic, dye-free, solvent-resistant)
	TG-1158 Golden Yellow (all-organic, dye-free, solvent-resistant)
	TG1156 Orange (all-organic, dye-free, solvent-resistant)

Custom colors: Additional shades can be matched to customer samples. All grades use nano-dispersion technology for uniform color, high transparency, and no specking.



Nano-Dispersion

Pigment particles ground to nano-scale for exceptional transparency and color uniformity in clear PETG.

Migration Resistance

All-organic pigment system eliminates dye bleeding — critical for cosmetics and food packaging.

Solvent Resistance

Withstands alcohols, oils, and common solvents without color loss or haze.

Easy Processing

Pellet form for direct dosing in injection molding, blow molding, and extrusion.

EP93 Series

PHOTOCHROMIC COLOR PASTE (UV-ACTIVATED ANTI-COUNTERFEIT PIGMENT)

Photochromic pigment paste that is colorless and transparent indoors, but develops vivid, saturated color within **30 seconds** of exposure to sunlight/UV radiation. Returns to colorless indoors. The cycle is fully reversible with stable performance over repeated use.

CORE CHARACTERISTICS

- ▶ **Colorless indoors** — transparent under ambient indoor light
- ▶ **Instant color outdoors** — full saturation within ~30 seconds of UV exposure
- ▶ **Reversible** — returns to colorless when removed from UV; repeatable cycles
- ▶ **Anti-counterfeit** — "show color in light, fade indoors" enables instant authenticity verification
- ▶ **Safe & eco-friendly** — no heavy metals, no formaldehyde; non-toxic, suitable for cosmetics and crafts

AVAILABLE COLORS

	ZC-M519M Photochromic Rose Red
	ZC-M516P Photochromic Violet-Blue
	ZC-096 Photochromic Flame Orange
	ZC-H101 Photochromic Violet
	ZC-G28 Photochromic Sun Green
	ZC-Y39 Photochromic Golden Yellow
	ZC-B71 Photochromic Deep Blue
	ZC-M514R Photochromic Rose Red

APPLICATION AREAS

Adhesives

Epoxy AB adhesive, crystal AB glue, handcraft glue, drip glue, UV photo-curable adhesive, UV nail gel. Add 3–5% to achieve both bonding and photochromic anti-counterfeit/decorative effects. In UV nail gel, produces different nail colors under varying light conditions.

Coatings

Craft and art coatings. The coated article displays a specific saturated color under sunlight and reverts to colorless indoors, adding unique visual and anti-counterfeit functionality without compromising protection.

Plastics & Composites

Injection-molded and cast resin parts, promotional items, toys, and novelty products where reversible color change adds value.



Tosoh & Grace Matting Powders

SILICA MATTING AGENTS FOR COATINGS & INKS

Tosoh (Japan) and Grace (USA) silica matting powders feature fine, narrowly distributed particle sizes and superior surface treatment. They effectively avoid whitening and graininess in paint films, delivering professional matte and semi-matte finishes with excellent dispersion, transparency, and smoothness. Compatible with water-based, solvent-based, and UV systems without affecting intercoat adhesion or chemical resistance.



Tosoh E-1011 Silica Matting Powder

Particle size: 1.5 μm · Japan

Extra-fine particle size for the most demanding thin-film systems. Provides excellent transparency without affecting base coat clarity. Can be added on top of a cured film without causing settling. Good matting efficiency, easy dispersion, smooth film surface.



Grace CP4-8991 Silica Matting Powder

Particle size: 4.5–6.0 μm · USA

Surface-treated high-pore-volume silica with fine particle size. High matting efficiency, easy dispersion, good transparency and smoothness in wet and dry films. Primarily for thin-film matting: high-quality water-based and oil-based furniture finishes, artificial/natural leather finishes, automotive plastic parts, and thin films.



Grace SY7000 Silica Matting Powder

Particle size: 4.6 μm · USA

High shear stability; surface wax treatment prevents hard sedimentation during storage. No impact on curing or intercoat adhesion. Smooth, wear-resistant matte finish with high transparency. Ideal for high-quality water-based and oil-based systems, art paints, and art oil paints.



Grace C-803 Silica Matting Powder

Particle size: 3.4–4.0 μm · USA

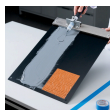
Synthetic, untreated, high-pore-volume, easily dispersed silica. Finer, smoother, and more transparent than conventional silica for high-quality thin films. Suitable for solvent-based coatings, PU coatings, leather coatings, wood coatings, PU treatment agents, and plastics. Excellent matting efficiency with a refined hand-feel.

Selection guide: Use E-1011 (1.5 μm) for ultra-fine, high-transparency thin films; C-803 (3.4–4.0 μm) for balanced performance in premium coatings; SY7000 (4.6 μm) for high-shear and storage-stable systems; CP4-8991 (4.5–6.0 μm) for high matting efficiency in furniture and leather.

Full-System Additives

DISPERSANTS · DEFOAMERS · LEVELING AGENTS

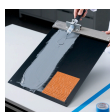
A complete range of coating additives compatible with water-based, solvent-based, and solvent-free systems. Wetting/dispersing agents improve pigment distribution; defoamers eliminate production bubbles; rheology modifiers control flow; surface agents optimize film properties; thickeners improve stability; and anti-rust additives prevent substrate flash rust.



EP-3109 High-Efficiency Defoamer

Specially designed for epoxy-based composites. For semiconductor packaging, injection potting, high-temperature sealing. Long-lasting foam suppression; inhibits chemical bubble generation under high-temperature epoxy curing. 50% solids.

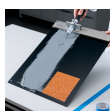
Addition: 0.5–1%



EP-3106 High-Efficiency Universal Defoamer

For unsaturated polyester crafts and high-viscosity epoxy systems. Suppresses mechanical foam during processing and micro-foam from reaction. Wide compatibility; suitable for both conventional resins and adhesives. 50% solids.

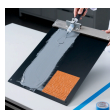
Addition: 0.5–1%



EP-3750 Non-Silicone Leveling Agent

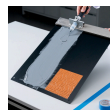
Fluorine-modified acrylic copolymer with broad compatibility. Strong substrate wetting; minimal effect on intercoat adhesion and DPP pigment flocculation. Excellent heat resistance up to 350 °C; no precipitation, no impact on gloss. 55% solids.

Addition: 0.1–1% (recommended 0.3–0.5%)



DS-F50 Oil-Based Universal Dispersant

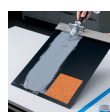
Especially for stabilizing inorganic pigments (titanium dioxide, iron oxide red). Improves whiteness and hiding power, increases gloss, improves storage stability, prevents hard settling, and reduces grinding time.

TiO₂: 2–5% · Organic pigment: 5–10% · Inorganic: 20–40% · 100% solids


DS-F24 Oil-Based Universal Dispersant

For hard-to-disperse mid/high-color carbon blacks. Excellent viscosity reduction, improved color strength and gloss. Outstanding wetting/dispersion for FW200/1300 carbon blacks; optimizes dispersion and stability of organic/inorganic pigments in coatings and color pastes.

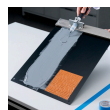
Pigment: 10% · Carbon black: 10–20% · 100% solids



DS-F52 Oil-Based Universal Dispersant

For organic red pigments (FBB red 170/177/179, 122/254/254 reds). Excellent wetting/dispersion for alcohol-acid long-oil inks, coil coatings, plastic 3C coatings, alcohol-water industrial paints, and alcohol-water oil-based inks. Can be used in water-miscible alcohol-water systems (alcohol:water > 1:2).

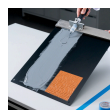
Pigment: 10% · Carbon black: 10–20% · 100% solids



DS-0910 Water-Soluble Dispersant

For alcohol-soluble, ether-soluble, and alcohol-water systems. Good wettability for organic pigments/phthalocyanine/DPP pigments. Carbon black exhibits excellent color development and stability in alcohol-water systems. Enhances open-time and gloss.

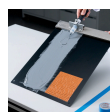
Pigment: 10% · Carbon black: 10–20% · 100% solids



DS-4350 Dispersant

Good viscosity reduction for high-pigment loading; shortens milling time. Excellent anti-settling; suitable for anti-corrosion coatings, mineral oil, DOP/DOTP plasticizer color pastes.

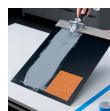
Pigment: 10–20% · Plasticizer system: 1.5–3% · Mineral oil: 1.5–2.5% · 100% solids



DS-43 Dispersant

For solvent-based chlorinated polypropylene inks, alcohol-acid resin systems, and mid/low-grade solvent-based color pastes. Shortens milling time, reduces viscosity, increases pigment loading, improves color paste fluidity, and provides anti-coarse/agglomeration for enhanced storage stability.

Pigment: 10% · Carbon black: 10–20% · 100% solids



DS-E05 Powder Coating Dispersant

Improves pigment dispersion and stability in thermoplastics, enhances color strength, eliminates pinholes, and improves coating flow and leveling. Significant high-gloss effect. For thermoset/thermoplastic powder coatings; reduces pigment addition in EVA and PVC.

0.5–1% · Powder form

DENSON

FUNCTIONAL MATERIALS

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