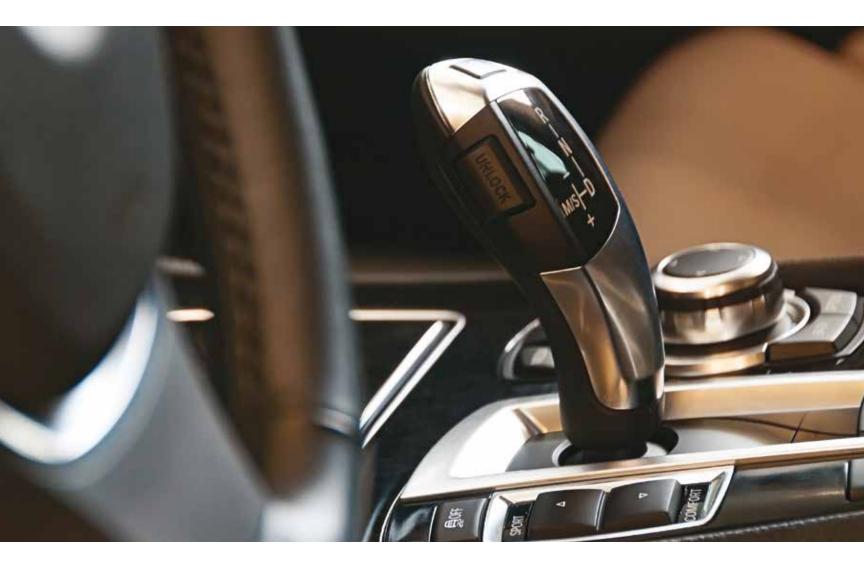
# **INDUSTRIAL COATINGS**

Product Data & Selection Guide





**For over 70 years**, Silberline has been an industry leader in providing metallic pigments to the coatings market. The industrial coatings portfolio is comprised of a broad range of high performance metallic pigments designed for the unique needs of the coatings industry. We offer our products in powder, granular, flake and paste forms, each designed to maximize ease of use, increase stability, enhance brightness, safety and compatibility with virtually any industrial coating application.

## **Product Lines**

Silberline provides the following families of aluminum pigments for use in coatings to produce metallic silver and colored metallic shades for applications as diverse as automotive OEM, refinish, mobile phones, appliances, packaging, cosmetics, televisions, wheel coatings, bicycle coatings, etc... With the widest range of particle size, geometry and delivery forms, the possible applications for applying these unique metallic pigments are as limitless as the imagination.

<ul><li>Pigment Series</li><li>Suitable</li></ul>	Automotive Solventborne OEM	Automotive Waterborne OEM	Automotive Solventborne Refinish	Automotive Waterborne Refinish	Auto Parts and Accessories	Wheels	Automotive Interior	Solventborne Industrial Coatings	Waterborne Industrial Coatings	Can Coatings	Powder Coatings
A Series								•		•	
AQUA PASTE®		•		•	•	•	•		•		
AQUASIL®									•		
AQUAVEX®									•		
AQUAVEX AD									•		
Dedusted Flake											•
ETERNABRITE <sup>®</sup>								•			
ETERNABRITE Premier								•			
SILBERCOTE®AQ		•		•	•	•	•		•		
SILBERCOTE AQ Liquid Metal		•		•	•	•	•		•		
SILBERCOTE AQ X-treme		•		•	•	•	•		•		
SILBERCOTE AQ Star		•		•	•	•	•		•		
SILBERCOTE PC-X											•
SILBERCOTE PC-XS											•
SILBERCOTE Y					•		•	•			
SILBERCOTE Z					•		•	•			
SILVER STAR®	•		•		•	•	•	•			
SILVET®											•
SPARKLE SILVET®											•
SPARKLE SILVER®	•		•		•	•	•	•			
SPARKLE SILVER Premier	•		•		•	•	•	•			
SPARKLE SILVER ULTRA®	•		•		•	•	•	•			
SPARKLE SILVER Elite	•		•		•	•	•	•			
SPARKLE SILVER X-treme	•		•		•	•	•	•			
SPARKLE SILVER ULTRA Liquid Metal	•		•		•	•	•	•			
SPARKLE SILVER Elite Liquid Metal	•		•		•	•	•	•			
Standard								•		•	
STARBRITE®					•	•	•	•			
STARBRITE Reveal					•	•	•	•			
STARBRITE Reveal AQ					•	•	•		•		
TUFFLAKE®	•										
TUFFLAKE Premier	•										

# **PRODUCTS & SPECIFICATIONS**

Produced in North America





## Passivated Aluminum Paste for Waterborne Coatings

Family	Percentage Non-volatile by Weight	D (50%) Microns	Maximum Percentage Retained 325 Mesh	Solvent Carrier	Passivation
AQUA PASTE 5500-C43	57.0	14	0.10	MS/HA/GE	PHS
AQUA PASTE 554-C33	63.0	16	0.10	MS/HA/GE	PHS
AQUA PASTE 354-C23	64.0	24	0.10	MS/HA/GE	PHS
AQUA PASTE 3130-C23	64.0	36	0.10	MS/HA/GE	PHS
WATERBORNE LEAFING					
AQUASIL BP 205	68.0	15	1.00	MS/HA/NE/GE	PHS/SF
WATERBORNE NON-LEAFING					
AQUASIL BP SN	63.0	14	1.00	MS/HA/NE/GE	PHS/SF
AQUASIL BP 5500	62.0	14	0.10	MS/HA/NE/GE	PHS/SF
AQUASIL BP SO	63.0	17	1.00	MS/HA/NE/GE	PHS/SF
AQUASIL BP 3500	63.0	27	2.00	MS/HA/NE/GE	PHS/SF
AQUASIL BP 3641	68.0	31	1.00	MS/HA/NE/GE	PHS/SF
AQUASIL BP 3622	78.0	35	1.00	MS/HA/NE/GE	PHS/SF
AQUASIL BP 2750	68.0	55	1.00*	MS/HA/NE/GE	PHS/SF

Abbreviations: GE (Glycol Ether); HA (High Aromatic); MS (Mineral Spirits); NE (Nitroethane); PHS (Phosphate); SF (Surfactant)

\*Maximum percentage retained 200 mesh

AQUA PASTE – Easy dispersion in co-solvent and provides excellent gassing resistance and stability in waterborne systems. This line includes a combination of solvents useful for formulating in waterborne applications. Silberline's AQUA PASTE inorganic passivation technology is applicable to traditional corn flake and silver dollar aluminum flake pigments.

AQUASIL – Specifically created for aqueous architectural and industrial maintenance coatings. This line of products offers a cost-effective alternative for achieving stability and system compatibility with a broad range of coating vehicles, while offering aesthetics to meet virtually any formulating requirement.

## Aluminum Pigments for Solventborne Coatings

Leafing and non-leafing aluminum pigments are commonly used in a variety of coatings including maintenance coatings, powder coatings, automotive coatings and traditional liquid coatings. Aluminum pigments bring value to these coatings by increasing their aesthetic value and by adding functional attributes to the finished coating film.

## Leafing Aluminum Paste for Solventborne Coatings

Family	Percentage Non-volatile by Weight	Minimum Percentage Leafing	D (50%) Microns	Maximum Percentage Retained 325 Mesh	Solvent Carrier	ASTM D962-86
STANDARD SERIES						
Extra Fine P	73.0	55	9	0.10	MS	Type II; Class A
A-6240	73.0	55	11	1.00	MS	Type II; Class B
Extra Fine A	65.0	55	12	0.10	MS	Type II; Class A
Stamford P	73.0	55	13	1.00	MS	Type II; Class B
Stamford A1	65.0	55	15	1.00	MS	Type II; Class B
A-6205	65.0	55	17	1.00	MS	Type II; Class B
Silvar A	65.0	55	20	15.00	MS	Type II; Class C
ETERNABRITE 651-1	72.0	80	7	0.10	MS	Type II; Class A
ETERNABRITE Premier 351	80.0	60	13	0.10	MS	Type II; Class A
ETERNABRITE 301-1	68.0	90	14	1.00	MS	Type II; Class B
ETERNABRITE Premier 255	74.0	70	15	0.10	MS	Type II; Class A
ETERNABRITE Premier 251	74.0	70	17	0.10	MS	Type II; Class A

#### Abbreviation: MS (Mineral Spirits)

Standard Series – Standard leafing grades are based on corn flake geometry. They are manufactured to offer economical solutions to the coatings formulator seeking to develop coatings with typical metallic leafing effects. These products are available in medium to fine particle size and are characterized by a broad particle size distribution range for good coverage.

ETERNABRITE - These leafing pastes are based on corn flake geometry manufactured to provide enhanced leafing characteristics.

ETERNABRITE Premier – Products based on silver dollar geometry offer stronger, brighter, and more specular leafing reflectance compared to the standard leafing grades.



## Non-leafing Aluminum Paste for Solventborne Coatings

Family	Percentage Non-volatile by Weight	D (50%) Microns	Maximum Percentage Retained 325 Mesh	Solvent Carrier
STANDARD SERIES				
Super Fine N	65.0	6	0.10	MS/HA
Extra Fine N	65.0	7	0.10	MS/HA
Extra Fine 0	65.0	10	0.10	MS/HA
L-270	65.0	12	0.10	MS/HA
Lansford 243	65.0	14	1.00	MS/HA
Stamford 0	65.0	17	1.00	MS/HA
Stamford Q	65.0	23	2.00	MS/HA
A SERIES				
A-1590FG	65.0	6	0.10	MS/HA
A-2291FG.SEA	65.0	7	0.10	MS/HA
A-2291FG	65.0	8	0.10	MS/HA
A-1592FG	65.0	9	0.10	MS/HA
A-226	65.0	13	0.10	MS/HA
A-222FG	65.0	14	1.00	MS/HA
-222FG	65.0	14	1.00	MS/HA

Abbreviations: HA (High Aromatic); MS (Mineral Spirits) Maximum percentage retained 200 mesh

Standard Series – A non-leafing series based on corn flake geometry. It is ideally suited for use in industrial coatings where economics and typical metallic appearance is important. The metallic effects produced by this grade range from a muted silver to a standard silver appearance. The standard non-leafing pastes are available with particle sizes ranging from medium to extra fine. They are characterized by a relatively broad particle size distribution range for good coverage.

A Series – This series consists of several grades that are non-acid resistant and can be used for coatings in food packaging. They are classified as Type IV non-leafing aluminum pigments.





#### **Corn Flake Aluminum Paste for Solventborne Coatings**

Family	Percentage Non-volatile by Weight	D (50%) Microns	Maximum Percentage Retained 325 Mesh	Solvent Carrier
SPARKLE SILVER 7000-AR	64.0	7	0.10	MS/HA
SPARKLE SILVER 7500	64.0	11	0.10	MS/HA
SPARKLE SILVER 6246-AR	62.0	13	0.01	MS/HA
SPARKLE SILVER 5500	64.0	14	0.10	MS/HA
SPARKLE SILVER 5000-AR	64.0	14	0.10	MS/HA
SPARKLE SILVER 3333-AR	60.0	15	0.10	MS/HA
SPARKLE SILVER 5745	64.0	19	0.01	MS/HA
SPARKLE SILVER 5271-AR	64.0	19	0.01	MS/HA
SPARKLE SILVER 5245-AR	62.0	21	0.01	MS/HA
SPARKLE SILVER 3500 *	65.0	27	2.00	MS/HA
SPARKLE SILVER 3201-ST	65.0	28	1.00	MS/HA
SPARKLE SILVER 3000-AR	65.0	28	2.00	MS/HA
SPARKLE SILVER 3199-AR	60.0	29	2.00	MS/HA
SPARKLE SILVER 3166-AR	60.0	30	5.00	MS/HA
SPARKLE SILVER 3666	60.0	30	5.00	MS/HA
SPARKLE SILVER 3141-ST *	66.0	30	1.00	MS/HA
SPARKLE SILVER 3641 *	70.0	31	1.00	MS/HA
SPARKLE SILVER 3622	78.0	35	1.00	MS/HA
SPARKLE SILVER 3130-AR *	74.0	36	1.00	MS/HA
SPARKLE SILVER 3122-AR	78.0	36	1.00	MS/HA
SPARKLE SILVER 2750	70.0	55	1.00**	MS/HA

Abbreviations: HA (High Aromatic); MS (Mineral Spirits)

\* Produced Globally

\*\*Maximum percentage retained 200 mesh

SPARKLE SILVER – This series was developed with technology to polish the aluminum flake surface which combined with a controlled particle size distribution, can be utilized in many solventborne coatings applications. The wide range of particle sizes available allows formulation of high opacity, smooth patina metallic silver effects and tints through to highly sparkling effects.

### Silver Dollar Aluminum Paste for Solventborne Coatings

Family	Percentage Non-volatile by Weight	D (50%) Microns	Maximum Percentage Retained 325 Mesh	Solvent Carrier
SILVER STAR 010	70.0	10	0.01	MS/HA
SILVER STAR 012	70.0	12	0.01	MS/HA
SILVER STAR 015	70.0	15	0.10	MS/HA
SILVER STAR 018	70.0	18	0.10	MS/HA
SILVER STAR 022	75.0	22	0.10	MS/HA
SPARKLE SILVER Premier 695	75.0	12	0.01	MS/HA
SPARKLE SILVER Premier 572	70.0	14	0.01	MS/HA
SPARKLE SILVER Premier 516-AR	64.0	14	0.01	MS/HA
PARKLE SILVER Premier 552	70.0	15	0.01	MS/HA
PARKLE SILVER Premier 504-AR	70.0	15	0.01	MS/HA
PARKLE SILVER Premier 554	70.0	16	0.01	MS/HA
PARKLE SILVER Premier 404-AR	70.0	18	0.01	MS/HA
PARKLE SILVER Premier 303-AR *	70.0	20	0.01	MS/HA
PARKLE SILVER Premier 454	70.0	22	0.01	MS/HA
PARKLE SILVER Premier 313-AR *	70.0	22	0.01	MS/HA
PARKLE SILVER Premier 353 *	70.0	23	0.01	MS/HA
PARKLE SILVER Premier 354	70.0	24	0.01	MS/HA
PARKLE SILVER Premier 132-AR	78.0	24	0.10	MS/HA
PARKLE SILVER Premier 055	80.0	34	0.10	MS/HA
PARKLE SILVER ULTRA 7908	70.0	7	0.01	MS/HA
PARKLE SILVER ULTRA 7807	73.0	9	0.01	MS/HA
PARKLE SILVER ULTRA 6704	77.0	11	0.01	MS/HA
PARKLE SILVER ULTRA 6756	72.0	12	0.01	MS/HA
PARKLE SILVER ULTRA 6605	80.0	15	0.01	MS/HA
PARKLE SILVER ULTRA 6555	75.0	17	0.01	MS/HA
PARKLE SILVER Elite 010	72.0	10	0.01	MS/HA
PARKLE SILVER Elite 012	72.0	12	0.01	MS/HA
PARKLE SILVER Elite 014	72.0	14	0.01	MS/HA
PARKLE SILVER X-treme 15	72.0	15	0.01	MS/HA
PARKLE SILVER X-treme 17	72.0	17	0.01	MS/HA
PARKLE SILVER X-treme 19	72.0	19	0.10	MS/HA
PARKLE SILVER X-treme 20	72.0	20	0.10	MS/HA

Abbreviations: HA (High Aromatic); MS (Mineral Spirits)

\* Produced Globally

SILVER STAR – Designed to meet the high demands of our automotive coatings customers. The pigment's advanced silver dollar technology yields exceptional brilliance, expansive metal travel and very smooth patina. SILVER STAR offers excellent performance in OEM finishes in automotive interior coatings, wheels, parts and accessory coatings.

SPARKLE SILVER Premier – Engineered to have more uniform surfaces, rounder edges and tightly controlled particle size distributions. This unique silver dollar technology gives designers the possibility to create whiter, brighter and cleaner silver and polychromatic colors.

SPARKLE SILVER ULTRA – Very bright, lenticular pigments offering an exceptionally smooth patina and narrow particle size distribution. This allows the formulator to create very smooth, brilliant mass tones, or clean, vibrant colors. This grade is designed for the stylist to raise the bar in metallic effects and creativity.

SPARKLE SILVER Elite – Finer, brighter metallic effects offering excellent face brightness with a deep flop and high gloss. Used to create brilliant, high-gloss masstone silver colors or clean and vibrant tints

SPARKLE SILVER X-treme – Allows for clean tint bases that boost chromatic effect. These pigments employ Silberline's advanced silver dollar technology that yields exceptional color and brilliance. It generates richness in metallic reflection across a wide range of viewing angles and offers excellent performance in automotive OEM finishes. It is ideal for use in refinish, wheel coatings, parts and accessories.

### Liquid Metal Aluminum Paste for Solventborne Coatings

Family	Percentage Non-volatile by Weight	D (50%) Microns	Maximum Percentage Retained 325 Mesh	Solvent Carrier
SPARKLE SILVER ULTRA Liquid Metal 011	65.0	11	0.01	MS/HA
SPARKLE SILVER ULTRA Liquid Metal 018	60.0	18	0.01	MS/HA
SPARKLE SILVER ULTRA Liquid Metal 020	65.0	20	0.01	MS/HA
SPARKLE SILVER Elite Liquid Metal 011	70.0	11	0.01	MS/HA
SPARKLE SILVER Elite Liquid Metal 015	65.0	15	0.01	MS/HA

Abbreviations: HA (High Aromatic); MS (Mineral Spirits)

SPARKLE SILVER ULTRA Liquid Metal – Producing a brilliant sheen with no visible particles. These pigments provide the appearance of pure metals such as brushed aluminum, polished steel or anodized aluminum. Delivering a powerful one-two punch—the look and appearance of vacuum metallized flake with the application benefits of conventional aluminum pastes. These pigments also offer a bright, highly-polished reflective surface with little or no grain, narrow particle size distribution and smooth patina. They are ideal for automotive interiors, wheel coatings, trim and accessories, and specialty applications.

SPARKLE SILVER Elite Liquid Metal – The flakes of the Elite Liquid Metal series are brighter, providing significantly more hiding than the SPARKLE SILVER ULTRA Liquid Metal series. These fine silver dollar milled aluminum flakes with a highly polished surface can be formulated for use within a multitude of coatings ranging from automotive OEM, refinish, interior, wheel coatings, 3C and general industrial.





## SILBERCOTE Resin Treated Aluminum Paste

Family	Percentage Non-volatile by Weight	D (50%) Microns	Solvent Carrier	Surface Treatment
Y Series				
SILBERCOTE 516-20Y	55.0	14	MS/HA	Acrylic Polymer
SILBERCOTE 5245-20Y	50.0	21	MS/HA	Acrylic Polymer
Z Series				
SILBERCOTE 7908-10Z	55.0	8	MS/HA	Acrylic Polymer
SILBERCOTE 303-20Z	55.0	20	MS/HA	Acrylic Polymer
SILBERCOTE 132-10Z	60.0	24	MS/HA	Acrylic Polymer
SILBERCOTE 3641-10Z	61.0	31	MS/HA	Acrylic Polymer

Abbreviations: HA (High Aromatic); MS (Mineral Spirits)

SILBERCOTE Y and Z – Resin treated pigments have been created to provide non-leafing aluminum pigments with improved resistance to acids and alkalis, making them suited for automotive interior coatings and parts. The coating on the very bright pigments makes them less conductive. The surface treatment also improves the spray characteristics.



## TUFFLAKE Degradation Resistant Aluminum Paste for Solventborne Coatings

Family	Percentage Non-volatile by Weight	D (50%) Microns	Maximum Percentage Retained 325 Mesh	Solvent Carrier
TUFFLAKE 5950	70.0	11	0.01	MS/HA
TUFFLAKE 4700	70.0	13	0.01	MS/HA
TUFFLAKE 4615	70.0	15	0.01	MS/HA
TUFFLAKE 3650	78.0	15	0.01	MS/HA
TUFFLAKE 3700	76.0	15	0.01	MS/HA
TUFFLAKE 3645	78.0	16	0.01	MS/HA
TUFFLAKE 3120-AR	78.0	17	0.01	MS/HA
TUFFLAKE 3620	78.0	18	0.01	MS/HA
TUFFLAKE 2222-AR	82.0	35	0.10	MS/HA
TUFFLAKE Premier 010	70.0	10	0.01	MS/HA
TUFFLAKE Premier 125	72.0	12	0.01	MS/HA
TUFFLAKE Premier 018	78.0	18	0.01	MS/HA
TUFFLAKE Premier 024	78.0	24	0.10	MS/HA

Abbreviations: HA (High Aromatic); MS (Mineral Spirits)

**TUFFLAKE** – Degradation resistant pigments developed to be compatible with newer paint application systems. Very high shear can be experienced during application which can lead to a color shift due to breaking and deforming of individual aluminum flakes. Our TUFFLAKE line of circulation resistant pigments is specifically engineered to withstand these mechanical forces and maintain their targeted appearance.

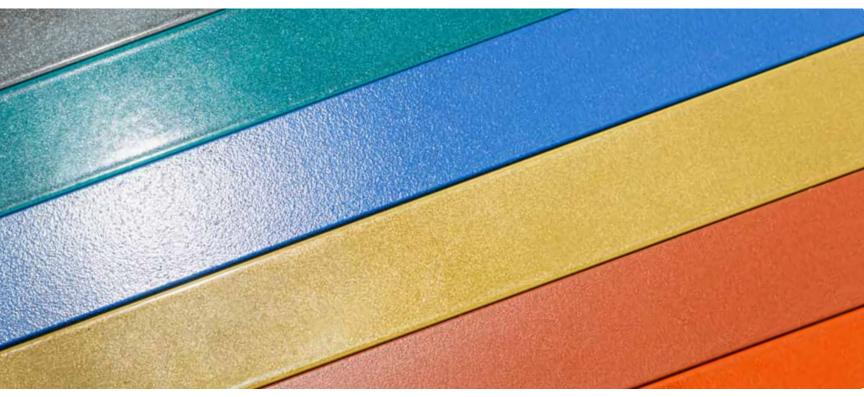
## Aluminum Pigments for Powder Coatings

The following product families are designed to provide value to the powder coatings manufacturer based on performance in the finished powder coating. The products provide compatibility across a full range of powder coating types and support the demands of virtually any application.

Dedusted Flake (DF) Series				
Family	Percentage Non-volatile by Weight	D (50%) Microns	Surface Treatment	Application
DF-554	99.6	16	N/A	Bonding
DF L-520AR	99.6	20	N/A	Bonding
SILVET Series				
Family	Percentage Non-volatile by Weight	D (50%) Microns	Carrier	Application
LEAFING				
SILVET 210-20-J *	99.0	15	Aldehyde	Extrusion
NON-LEAFING				
SPARKLE SILVET 790-20-P	98.5	45	Acrylic	Extrusion
SPARKLE SILVET 960-20-J	99.0	14	Aldehyde	Extrusion
SPARKLE SILVET 880-20-J	99.0	28	Aldehyde	Extrusion
SPARKLE SILVET 790-20-J	99.0	45	Aldehyde	Extrusion
SPARKLE SILVET 960-25-E	98.5	14	Polyolefin	Extrusion
SPARKLE SILVET 960-30-E1 *	98.5	14	Polyolefin	Extrusion
SPARKLE SILVET 880-20-E	98.5	28	Polyolefin	Extrusion
SPARKLE SILVET 790-20-E	98.5	35	Polyolefin	Extrusion
SPARKLE SILVET 790-30-E1 *	98.5	44	Polyolefin	Extrusion
SPARKLE SILVET 760-20-E	98.5	55	Polyolefin	Extrusion

\* Produced Globally

SILVET – Dry, non-dusting granular form for ease of handling and dispersion when added to powder coatings by the extrusion method. The SILVET granules are available in a wide range of particle sizes, in leafing and non-leafing types and with either synthetic aldehyde, acrylic or polyolefin carrier resins. The product can be applied by electrostatic or tribo application. Care must be taken during extrusion and micronizing stages to avoid damage to the aluminum particles which can reduce brightness and sparkle.



## Vacuum Metalized Pigments

Family	Percentage Non-volatile by Weight	D (50%) Microns	Solvent Carrier*	Passivation
STARBRITE 6108-EAC	10.0	8	EAC	-
STARBRITE 2100-EAC	10.0	10	EAC	-
STARBRITE 4102-EAC	10.0	12	EAC	-
STARBRITE 5102-EAC	10.0	12	EAC	-
STARBRITE Reveal 4102-EAC	10.0	12	EAC	-
STARBRITE Reveal AQ 4172-PA	17.0	12	IA	PHS/SF
STARBRITE Reveal AQ 4172-PM	17.0	12	GE/PM	PHS/SF

\* Other carrier solvents are available.

Abbreviations: EAC (Ethyl Acetate); GE (Glycol Ether); IA (Isopropyl Alcohol); PHS (Phosphate); SF (Surfactant); PM (1-Methoxy - 2-Propanol)

STARBRITE – Unique characteristics enable the formulator to achieve a smooth, mirror-like metallic effect with a highly-reflective, brilliant finish due to its exceptionally high surface area and aspect ratio. These products are supplied as 10% dispersion in ethyl acetate solvent, with certain other solvents available upon special request. STARBRITE Reveal offers broader compatibility and a greener manufacturing process.

STARBRITE Reveal AQ - Allows for mirror-like waterborne coatings to be produced. Good stability and compatibility are possible.

Silberline's technical service team can help you select the appropriate product grade, formulation or application technique for your specific process. By using high-quality test methods and practices at Silberline's Center for Technical Functions and Advanced Manufacturing, customers get top-notch help solving their aluminum coatings challenges.





# **PRODUCTS & SPECIFICATIONS**

Produced in Europe

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## Aluminium Pigments for Waterborne Coatings

Inhibited Aluminium Paste for Waterborne Coatings

Silberline has developed several unique passivation technologies, each with a level of sophistication and performance that is tailored to meet legislative requirements for waterborne coatings. Various chemistries have been developed to optimize the interaction with the aluminium flake surface, imparting outstanding performance and stability while maintaining optimum aesthetics. Silberline can apply its passivation technology to any traditional aluminium pigment we manufacture, resulting in a wide range of possible metallic effects. In addition, each batch of passivated aluminium pigment is tested and approved for gassing stability prior to shipment.

#### Percentage D (50%) Solvent Non-volatile Surface by Weight Microns Family Geometry Carrier Treatment SILBERCOTE AQ E5000-F3X 50.0 GE 15 Corn Flake Silica SILBERCOTE AQ E2169-F3X 50.0 15 Corn Flake GE Silica SILBERCOTE AQ E666-F2X 50.0 20 GE Corn Flake Silica SILBERCOTE AQ 3500-F2X 50.0 28 GE Corn Flake Silica SILBERCOTE AQ 3130-F1X 58.0 36 Corn Flake GE Silica SILBERCOTE AQ E2140-F3X 50.0 14 Silver Dollar GE Silica SILBERCOTE AQ E554-F2X 50.0 17 Silver Dollar GE Silica SILBERCOTE AQ E2154-F2X 50.0 18 Silver Dollar GE Silica SILBERCOTE AQ E354-F3X 58.0 26 Silver Dollar GE Silica SILBERCOTE AQ Liquid Metal 011 60.0 11 GE Silver Dollar Silica SILBERCOTE AQ Liquid Metal 020 60.0 20 Silver Dollar GE Silica SILBERCOTE AQ Elite Liquid Metal 011 60.0 11 Silver Dollar GE Silica SILBERCOTE AQ Elite Liquid Metal 015 60.0 GE 15 Silver Dollar Silica SILBERCOTE AQ X-treme 15 15 GE 55.0 Silver Dollar Silica SILBERCOTE AQ X-treme 17 55.0 17 Silver Dollar GE Silica SILBERCOTE AQ X-treme 19 55.0 19 Silver Dollar GE Silica SILBERCOTE AQ X-treme 20 60.0 20 GE Silver Dollar Silica SILBERCOTE AQ Star 010 60.0 10 GE Silica Silver Dollar SILBERCOTE AQ Star 012 60.0 12 GE Silver Dollar Silica SILBERCOTE AQ Star 015 60.0 16 Silver Dollar GE Silica SILBERCOTE AQ Star 018 60.0 18 Silver Dollar GE Silica SILBERCOTE AQ Star 022 60.0 22 Silver Dollar GE Silica SILBERCOTE AQ Elite 010 60.0 10 Silver Dollar GE Silica SILBERCOTE AQ Elite 012 60.0 12 Silver Dollar GE Silica SILBERCOTE AQ Elite 014 60.0 Silver Dollar GE Silica 14

Abbreviation: GE (Glycol Ether)

SILBERCOTE AQ – Passivated aluminium pigments use advanced technology to encapsulate each individual flake of aluminium with a uniform, coherent and protective layer of silica. The result is a pigment with excellent gassing resistance and stability in a wide range of metallic effects. Easily dispersed into water/co-solvent while providing excellent adhesion. The treatment can be applied to both corn flake and silver dollar aluminium pigments and has been found to also enhance the circulation stability of the pigment while maintaining the flake integrity, shape and coloristic properties.

## **Passivated Aluminium Pigments for Waterborne Coatings**

Family	Percentage Non-volatile by Weight	D (50%) Microns	Geometry	Туре	Carrier	Aluminum Content	Passivation
AQUAVEX L 010	98.5	10	Corn Flake	Leafing	SF	80	Advanced Phosphate
AQUAVEX NL 010	98.5	10	Corn Flake	Non-leafing	SF	80	Advanced Phosphate
AQUAVEX NL 013	98.5	13	Corn Flake	Non-leafing	SF	80	Advanced Phosphate
AQUAVEX NL 015	98.5	15	Corn Flake	Non-leafing	SF	80	Advanced Phosphate
AQUAVEX NL Premier 011	98.5	12	Silver Dollar	Non-leafing	SF	80	Advanced Phosphate
AQUAVEX NL Premier 016	98.5	16	Silver Dollar	Non-leafing	SF	80	Advanced Phosphate
AQUAVEX AD 010	98.5	10	Corn Flake	Non-leafing	SF	75	PHS
AQUAVEX AD 013	98.5	13	Corn Flake	Non-leafing	SF	75	PHS
AQUAVEX AD 015	98.5	15	Corn Flake	Non-leafing	SF	75	PHS
AQUAVEX AD Premier 011	98.5	11	Silver Dollar	Non-leafing	SF	75	PHS

Abbreviation: PHS (Phosphate); SF (Surfactant)

AQUAVEX – Passivation utilizes advanced phosphate technology to stabilize the aluminium pigment from reacting with water in waterborne coatings systems. The product is supplied in a granular version containing a low-foaming, non-ionic surfactant for easy dispersion directly into water. AQUAVEX contains 80% aluminium pigment, is low dusting and is virtually solvent-free. AQUAVEX AD has a pigment content of 75% and improves adhesion to substrate and clear coat.

It is recommended that AQUAVEX AD granules are allowed to soak in plain water for no longer than 3 hours and always in an unsealed or vented container prior to being converted into the final ink.

#### Passivated Aluminium Paste for Waterborne Coatings

Family	Percentage Non-volatile by Weight	D (50%) Microns	Maximum Percentage Retained 325 Mesh	Geometry	Solvent Carrier	Passivation
AQUA PASTE 7005-C63	56.0	10	0.10	Corn Flake	MS/HA/GE	PHS
AQUA PASTE E2169-C43	60.0	13	0.10	Corn Flake	MS/HA/GE	PHS
AQUA PASTE E5245-C33	56.0	21	0.10	Corn Flake	MS/HA/GE	PHS
AQUA PASTE 3141-C33	60.0	31	0.10	Corn Flake	MS/HA/GE	PHS
AQUA PASTE 504-C33	63.0	16	0.10	Silver Dollar	MS/HA/GE	PHS
AQUA PASTE 454-C33	64.0	22	0.10	Silver Dollar	MS/HA/GE	PHS

Abbreviations: GE (Glycol Ether); HA (High Aromatic); MS (Mineral Spirits); PHS (Phosphate)

AQUA PASTE – Easy dispersion in co-solvent and provides excellent gassing resistance and stability in waterborne systems. This line includes a combination of solvents useful for formulating in waterborne applications. Silberline AQUA PASTE inorganic passivation technology is applicable to traditional corn flake and silver dollar aluminum flake pigments.

### **Resin Treated Aluminium Paste**

Family	Percentage Non-volatile by Weight	D (50%) Microns	Geometry	Solvent Carrier	Surface Treatment
LEP 12613	50.0	11	Silver Dollar	MS/HA	Acrylic Polymer
LEP 12633	50.0	20	Silver Dollar	MS/HA	Acrylic Polymer

Abbreviations: HA (High Aromatic); MS (Mineral Spirits)

Resin Treated Aluminium Pastes – SPARKLE SILVER ULTRA Liquid Metal pigments treated with a polymer coating for resistance to environmental chemical attack. These are designed for use in solvent borne coating systems, typically for automotive interior applications.

## Corn Flake Aluminium Paste for Solventborne Coatings

	Percentage Non-volatile	D (50%)	Maximum Percentage Retained	Solvent
Family	by Weight	Microns	325 Mesh	Carrier
SPARKLE SILVER E-7000-AR	64.0	7	0.10	MS/HA
SPARKLE SILVER 7005-AR	62.0	10	0.10	MS/HA
SPARKLE SILVER E-5000-AR	64.0	15	0.10	MS/HA
SPARKLE SILVER E-5306-AR	60.0	15	0.10	MS/HA
SPARKLE SILVER E-5245 AR	60.0	20	0.01	MS/HA
SPARKLE SILVER 3400-AR	60.0	22	0.01	MS/HA
SPARKLE SILVER 3500 *	65.0	27	2.00	MS/HA
SPARKLE SILVER E-3000 AR	65.0	28	2.00	MS/HA
SPARKLE SILVER 3334-AR	62.0	28	2.00	MS/HA
SPARKLE SILVER E-3166 AR	60.0	30	5.00	MS/HA
SPARKLE SILVER 3141-ST *	66.0	30	1.00	MS/HA
SPARKLE SILVER 3666 *	60.0	30	5.00	MS/HA
SPARKLE SILVER E-3199 AR	60.0	31	2.00	MS/HA
SPARKLE SILVER 3641 *	70.0	31	1.00	MS/HA
SPARKLE SILVER 3130-AR *	74.0	36	1.00	MS/HA
SPARKLE SILVER E-3122-AR	75.0	38	1.00	MS/HA
SPARKLE SILVER E-3622	75.0	38	1.00	MS/HA
A-1590	65.0	7	0.10	MS/HA
4-7260	65.0	15	0.10	MS/HA
E-1745AR	60.0	11	0.10	MS/HA
E-2169	64.0	14	0.10	MS/HA
E-2567ST	66.0	19	0.10	MS/HA
E-1147AR	64.0	20	0.10	MS/HA
E-2141	70.0	38	2.00	MS/HA
E-2519	70.0	47	1.00 <sup>1</sup>	MS/HA
L-20810	65.0	5	0.10	MS/HA
20245	64.0	8	0.10	MS/HA
-21790	65.0	11	0.10	MS/HA
-20957	62.0	19	0.01	MS/HA
21163	62.0	20	0.10	MS/HA
22745	60.0	26	1.00	MS/HA
20181	70.0	40	2.00 <sup>2</sup>	MS/HA
20328	75.0	80	N/A	MS/HA

Abbreviations: HA (High Aromatic); MS (Mineral Spirits)

\* Produced Globally

<sup>1</sup> Maximum Percentage Retained 230 Mesh

<sup>2</sup> Maximum Percentage Retained 200 Mesh

**CORN FLAKE ALUMINIUM PASTES** – This range of pigments consists of corn flake shaped aluminium pigments in paste versions. Most of the grades, including the SPARKLE SILVER series, have been designed with technology to polish the aluminium flake surface in combination with a controlled particle size distribution allowing them to have a wide application in solventborne coatings. The wide range of particle sizes available allows for formulations of high opacity, smooth patina metallic silver effects and tints through to highly sparkling effects.



## Silver Dollar Aluminium Paste for Solventborne Coatings

Family	Percentage Non-volatile by Weight	D (50%) Microns	Maximum Percentage Retained 325 Mesh	Carrier
SPARKLE SILVER Premier E-504-AR	70.0	15	0.01	MS/HA
SPARKLE SILVER Premier E-554	70.0	17	0.01	MS/HA
SPARKLE SILVER Premier 303-AR *	70.0	20	0.01	MS/HA
SPARKLE SILVER Premier 313-AR *	70.0	22	0.01	MS/HA
SPARKLE SILVER Premier 353 *	70.0	23	0.01	MS/HA
SPARKLE SILVER Premier E-354	70.0	26	0.01	MS/HA
E-2140	64.0	14	0.01	MS/HA
E-2107-AR	64.0	17	0.01	MS/HA
E-2157	64.0	17	0.01	MS/HA
E-2104-AR	65.0	19	0.01	MS/HA
E-2154	65.0	21	0.01	MS/HA
E-3054	70.0	31	0.10	MS/HA

Abbreviations: HA (High Aromatic); MS (Mineral Spirits)

\* Produced Globally

Silver Dollar aluminium Pastes – These pigments, including the SPARKLE SILVER Premier series, are engineered to have more uniform surfaces, rounder edges and tightly controlled particle size distributions. This unique silver dollar technology gives designers the possibility to create whiter, brighter and cleaner silver and polychromatic colours.



## Aluminium Pigments for Powder Coatings

The following product families are designed to provide value to the powder coatings manufacturer based on performance in the finished powder coating. The products provide compatibility across a full range of powder coating types and support the demands of virtually any application.

### **Aluminium Pigments for Powder Coatings**

Family	Percentage Non-volatile by Weight	D (50%) Microns	Surface Treatment	Application
SILBERCOTE PC E-3087	99.0	13	Silica	Dry blend/Bonding
SILBERCOTE PC-8153X	99.0	15	Silica	Dry blend/Bonding
SILBERCOTE PC-8602X	99.0	16	Silica	Dry blend/Bonding
SILBERCOTE PC-6222X	99.0	20	Silica	Dry blend/Bonding
SILBERCOTE PC-6792X	99.0	26	Silica	Dry blend/Bonding
SILBERCOTE PC-4852X	99.0	33	Silica	Dry blend/Bonding
SILBERCOTE PC-3331X	99.0	36	Silica	Dry blend/Bonding
SILBERCOTE PC-3101X	99.0	37	Silica	Dry blend/Bonding
SILBERCOTE PC-1291X	99.0	47	Silica	Dry blend/Bonding
LEB21114	99.0	33	Silica	Dry blend/Bonding
LEB21112	99.0	47	Silica	Dry blend/Bonding
SILBERCOTE PC-014XS	99.0	14	Advanced Silica	Dry blend/Bonding
SILBERCOTE PC-020XS	99.0	20	Advanced Silica	Dry blend/Bonding
SILBERCOTE PC-036XS	99.0	36	Advanced Silica	Dry blend/Bonding
SILBERCOTE PC-055XS	99.0	55	Advanced Silica	Dry blend/Bonding

SILBERCOTE Powder Coating X – High-performance, free-flowing aluminium pigment powder designed for electrostatic spray application. The individual aluminium flakes are coated with a uniform layer of silica which protects the aluminium particle from moisture and chemical degradation. These products are suitable for dry blending or bonding methods.

SILBERCOTE Powder Coating XS – Treated with an advanced proprietary silica surface encapsulation for use in demanding applications. The advanced treatment provides the highest degree of surface protection to the aluminium providing stability to harsh chemical environments such as alkali, acid, humidity, mortar, etc. These products are provided in the form of a free-flowing powder and are suitable for either dry blending or bonding methods.

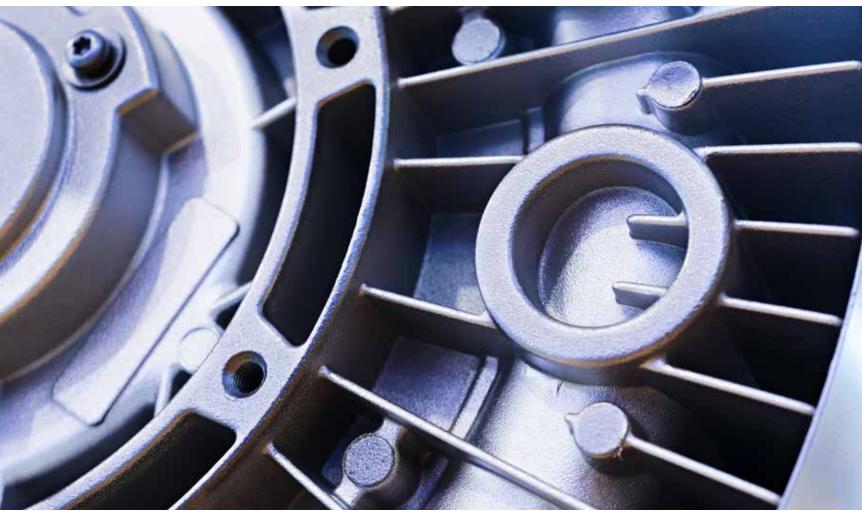
Acrylic Coated Powder Coating Series							
Family	Percentage Non-volatile by Weight	D (50%) Microns	Surface Treatment	Application			
LEB21016	98.5	17	Acrylic	Dry blend/Bonding			
LEB21125	99.0	46	Acrylic	Dry blend/Bonding			

Acrylic Coated Powder Coating Series – Treated with a polymer coating which provides excellent resistance to chemical degradation. These grades are supplied as a free-flowing powder with excellent application characteristics whether using bonded or dry blending methods.

SILVET Series				
Family	Percentage Non-volatile by Weight	D (50%) Microns	Carrier	Application
LEAFING		' 	' 	
SILVET 210-20-J *	99.0	15	Aldehyde	Extrusion
NON-LEAFING			·	
SILVET 210-30-E1	98.5	8	Polyolefin	Extrusion
SPARKLE SILVET 960-30-E1 *	98.5	14	Polyolefin	Extrusion
SPARKLE SILVET 880-30-E1	98.5	28	Polyolefin	Extrusion
SPARKLE SILVET 790-30-E1 *	98.5	45	Polyolefin	Extrusion
SPARKLE SILVET 764-30-E1	98.5	80	Polyolefin	Extrusion

#### \* Produced Globally

SILVET – Dry, non-dusting granular form for ease of handling and dispersion when added to powder coatings by the extrusion method. The SILVET granules are available in a wide range of particle sizes, in leafing and non-leafing types and with either synthetic aldehyde, acrylic or polyolefin carrier resins. The product can be applied by electrostatic or tribo application. Care must be taken during extrusion and micronizing stages to avoid damage to the aluminium particles which can reduce brightness and sparkle.



## **Global Reach**

Silberline has been an industry leader for over 70 years providing metallic pigments and technical expertise to industrial customers around the world. Whether you need special effect or performance-enhancing products for automotive, industrial coatings, graphic arts or plastics, contact The Architects of Light at your local office below or visit www.silberline.com.

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