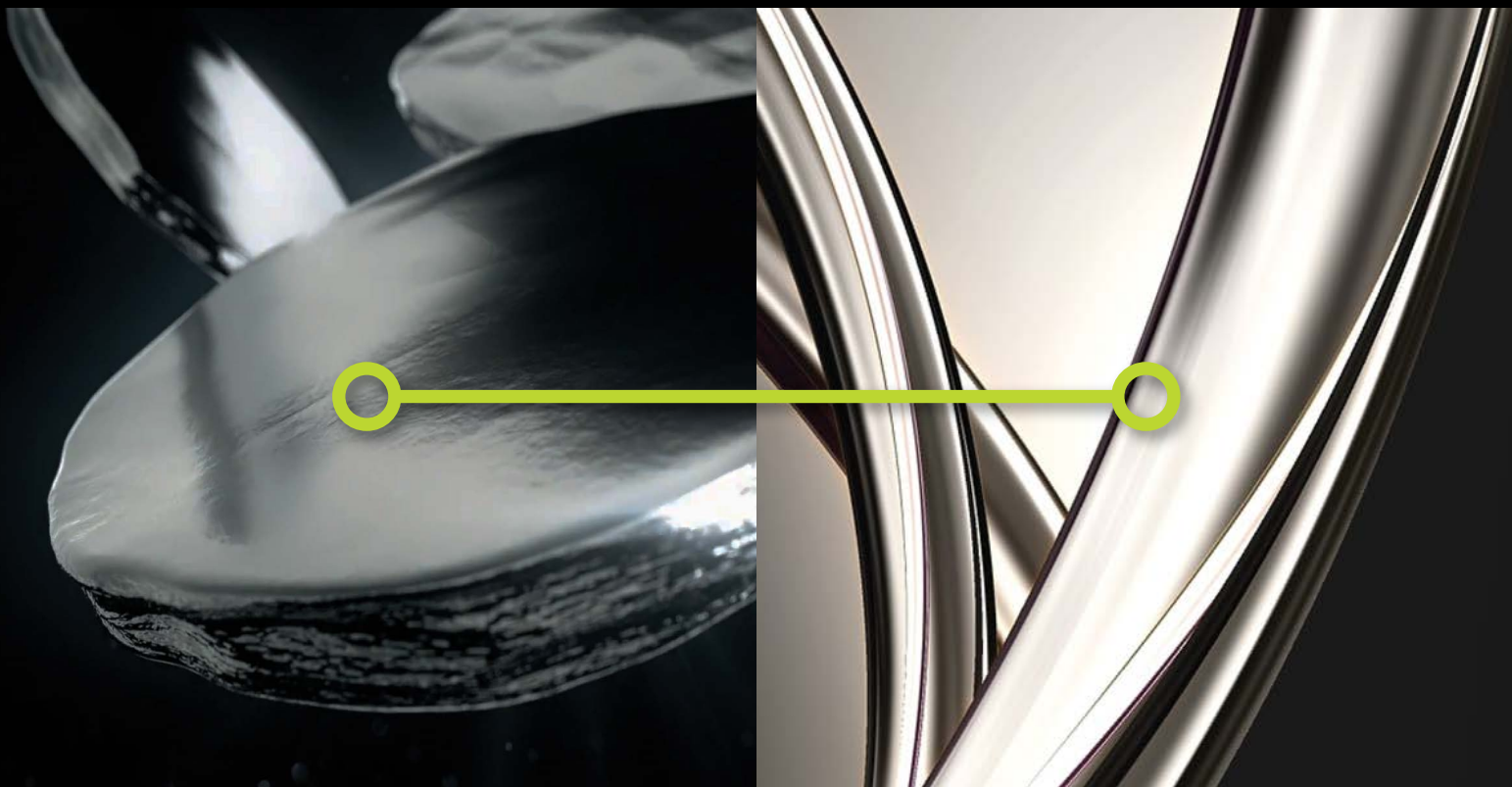


SILBERLINE®

FROM SCIENCE TO SHINE®

METALLIC PIGMENTS FOR PLASTICS

Product Data and Selection Guide: Europe



WE ARE SILBERLINE

**WE TRANSFORM RAW MATERIALS FROM SCIENCE TO SHINE,
BEAUTIFYING THE PRODUCTS OF OUR CUSTOMERS THROUGHOUT THE WORLD.**

Silberline thrives on a passion for innovation in creating the finest aluminium pigments for the brightest, most appealing effects possible. We are equally committed to supporting a balanced environment by seeking sustainable solutions in all we do.

Silberline's many lines of aluminium pigments can be used in multiple plastic applications such as automotive interior, exterior, appliances, computers, electronics, and high end packaging or any application where a high aesthetic appearance is desired.

With a wide range of particle sizes, geometry and delivery form options, the possibilities for applying our products are as limitless as your imagination.

Our products are based on a comprehensive palette of high-performance metallic pigments designed for the demanding needs of this industry. Our products have been developed to provide a unique combination of aesthetics, polymer compatibility, and functionality.



**Pigments with smaller
particle sizes provide
better opacity**



**Pigments with larger
particle size offer more
sparkle, brightness,
and flop characteristics**



**Pigments with wider
particle size distribution
provide better opacity**



**Pigments with narrow particle
size distributions can be used
with chromatic colorants to
provide cleaner colors**

SILVET®

SILVET® technology provides aluminium pigment in a low-dusting, low-VOC pellet or granule for a variety of polymers. Suitable for an extensive range of functional and aesthetic applications, the high metal content and carrier types allow the formulator flexibility with selected designs.



Available in: E1 Series - PE Wax granule form

GRADE	GEOMETRY	D (50%) MICRONS	CARRIER	% CARRIER
SILVET 210-30-E1	Corn Flake	8	PE Wax/Resin	30
SILVET ET2018	Corn Flake	11	PE Wax/Resin	60
SILVET 960-30-E1	Corn Flake	14	PE Wax/Resin	30
SILVET 880-30-E1	Corn Flake	28	PE Wax/Resin	30
SILVET 797-30-E1	Corn Flake	35	PE Wax/Resin	30
SILVET 790-30-E1	Corn Flake	45	PE Wax/Resin	30
SILVET 755-30-E1	Corn Flake	64	PE Wax/Resin	30
SILVET 764-30-E1	Corn Flake	80	PE Wax/Resin	30
SILVET Premier 950-30-E1	Silver Dollar	16	PE Wax/Resin	30
SILVET ET2271	Silver Dollar	26	PE Wax/Resin	30
SILVET ET2025	Silver Dollar	33	PE Wax/Resin	30
SILVET ET2426	Silver Dollar	55	PE Wax/Resin	30
SILVET 460-30-E1	Silver Dollar	65	PE Wax/Resin	30
SILVET 440-30-E1	Silver Dollar	83	PE Wax/Resin	30

SILVEX®

Silberline's aluminium pigments are wetted with a high-boiling plasticiser carrier with very low residual solvent content. These could be safely used in most polymer processing applications, replacing non-recommended dry and solvent paste aluminium pigments.



Available in: DOA—Diocetyl-Adipate Dampened Powder/Paste MO—Mineral Oil Dampened Powder/Paste

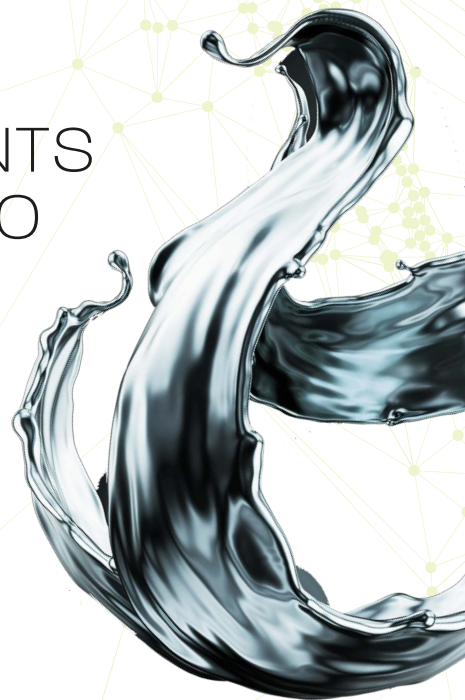
GRADE	GEOMETRY	D (50%) MICRONS	CARRIER	% CARRIER
SILVEX 210-20-C	Corn Flake	8	MO	20
SILVEX 880-20-C	Corn Flake	28	MO	20
SILVEX 793-20-C	Corn Flake	35	MO	20
SILVEX 790-20-C	Corn Flake	45	MO	20
SILVEX LX20779	Corn Flake	48	MO	20
SILVEX 760-20-C	Corn Flake	55	MO	20
SILVEX 764-20-C	Corn Flake	80	MO	20

SILVEX C – Carrier Flash Point 220 °C (ASTM D92, COC) SILVEX DOA - Carrier Flash Point 196 °C (ASTM D92, Closed Cup)

FINE & BRIGHT EFFECT PIGMENTS PLASTICS PRODUCT PORTFOLIO

Silberline continues to promote and commercialise additions to its line of ultra-fine, narrow particle size effect pigments.

With each effort, appearance, opacity and costs are balanced to create new grades of effect pigments for a near chrome appearance in paint replacement and mold-in-colour applications.



SPARKLE SILVET® (LIQUID METAL LM)

These fine and bright pigments offer a brilliant shine. With little or no grain and a smooth patina they provide the solid metallic appearance of pure metal, this highly reflective surface is valued in high-end applications such as automotive interiors and electronics.

GRADE	GEOMETRY	D (50%) MICRONS	CARRIER	% CARRIER
SPARKLE SILVET Elite LM 011-30-E1	Silver Dollar	11	PE Wax/Resin	30
SPARKLE SILVET Elite LM 015-30-E1	Silver Dollar	15	PE Wax/Resin	30
SPARKLE SILVET Ultra LM 011-30-E1	Silver Dollar	11	PE Wax/Resin	30
SPARKLE SILVET Ultra LM 020-30-E1	Silver Dollar	20	PE Wax/Resin	30

SPARKLE SILVET® Ultra

These 2nd generation silver dollar pigments give the clean appearance of a solid metal such as brushed steel or anodised aluminium. They have exceptionally smooth flake surfaces and narrow particle distribution.

When combined with transparent pigments and dyes they produce extraordinary clean, bright metallic colours. These pigments can also be used at low loadings to achieve pearl-like (metalescent) effects.

GRADE	GEOMETRY	D (50%) MICRONS	CARRIER	% CARRIER
SPARKLE SILVET Ultra 008-30-E1	Silver Dollar	8	PE Wax/Resin	30
SPARKLE SILVET Ultra 0014-30-E1	Silver Dollar	14	PE Wax/Resin	30
SPARKLE SILVET Ultra 0020-30-E1	Silver Dollar	20	PE Wax/Resin	30
SPARKLE SILVET Ultra 0028-30-E1	Silver Dollar	28	PE Wax/Resin	30

SPARKLE SILVET® E2

This new product family is carried in polypropylene, and offers global indirect food contact compliance, two-year shelf life, minimal dust generation, and low volatile content. SILVET E2 is compatible with a wide range of polymers used in the plastics industry. SPARKLE SILVET Ultra and Elite E2 pigment granules are extremely bright relative to their particle size and exhibit excellent gloss and distinctness of image that cannot always be realised with other aluminium flake carriers. These pigments are excellent choices for automotive OEM, paint replacement, appliances and any application where high brightness and smooth metallic in-mold finishes are desirable.

GRADE	GEOMETRY	D (50%) MICRONS	MIN % NV BY WEIGHT	% METAL BY WEIGHT	% CARRIER
SPARKLE SILVET Ultra 008-30-E2	Silver Dollar	8	98.5	70	30
SPARKLE SILVET Ultra 011-30-E2	Silver Dollar	11	98.5	70	30
SPARKLE SILVET Elite LM 015-30-E2	Enhanced Silver Dollar	15	98.5	70	30

**These products are available globally and other pigments can be incorporated into this carrier.*



Spherical Pigment Geometry

These grades were developed to provide aluminium pigments with two novel effects:

- Flow line reduction
- The potential for creating alluring and novel aesthetics in plastics

These characteristics are created by changing the shape of the aluminium pigment from the traditional 2-dimensional “flake” geometry to a 3-dimensional “spherical” geometry. When using these unique spherical highly polished aluminium pigments, light is reflected across multiple viewing angles creating a shimmering 3-D pinpoint sparkle effect.

GRADE	GEOMETRY	D (50%) MICRONS	CARRIER	% CARRIER
SILVET 600-10-E1	Spherical	20	PE Wax/Resin	10
SILVEX 400-10-C	Spherical	30	MO	10
SILVET 400-10-E1	Spherical	30	PE Wax/Resin	10
SILVEX 300-10-C	Spherical	43	MO	10
SILVET 300-10-E1	Spherical	43	PE Wax/Resin	10

SILVEX C - Carrier Flash Point 220°C (ASTM D92, COC)

TUFFFLAKE® Premier Series

TUFFFLAKE® Premier grades are silver dollar aluminium pigments with a highly polished reflective surface and a narrow particle size distribution. Plastics containing aluminium pigments may be subject to tremendous shear forces during processing. These mechanical forces can have the tendency to dull the metallic appearance of the final product by breaking and deforming the individual aluminium flakes. Silberline's TUFFFLAKE® line of pigments is specifically engineered to resist these mechanical forces and maintain their targeted appearance.

GRADE	GEOMETRY	D (50%) MICRONS	CARRIER	% CARRIER
TUFFFLAKE Premier 013-30-E1	Silver Dollar	13	PE Wax/Resin	30
TUFFFLAKE Premier 018-30-E1	Silver Dollar	18	PE Wax/Resin	30
TUFFFLAKE Premier 024-30-E1	Silver Dollar	24	PE Wax/Resin	30
TUFFFLAKE Premier 032-30-E1	Silver Dollar	32	PE Wax/Resin	30



No matter where you are,
we've got you covered.

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Silberline customer service centers around the globe are ready to assist you with product samples, literature requests, technical assistance and more. From concept to commercialisation and all stages in between, we are at your service with prompt, proven performance.

For assistance in selecting the Silberline products to meet your needs or to request product literature, contact your local Silberline representative.

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