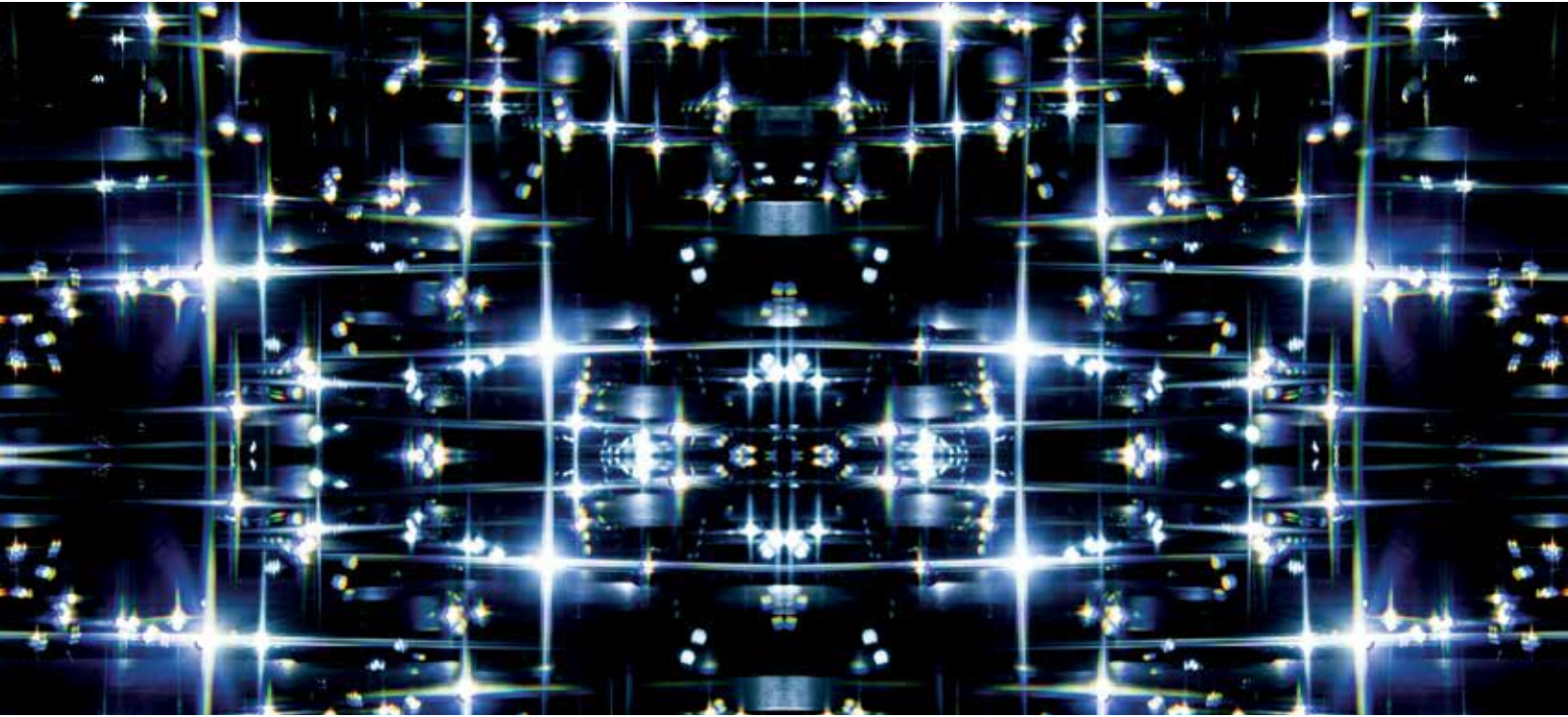


INDUSTRIAL COATINGS

STARBRITE® Vacuum Metallized Pigments Series



SILBERLINE®

The Architects of Light®



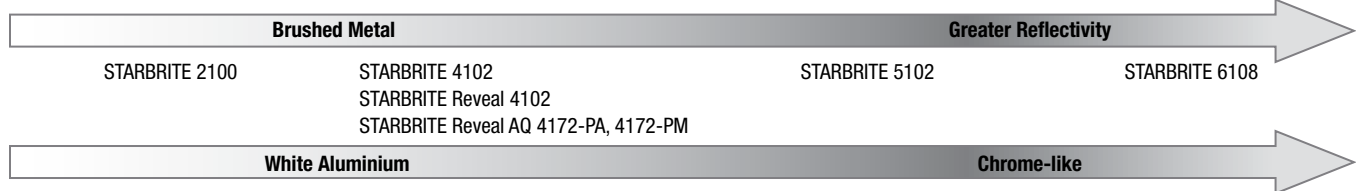
STARBRITE, STARBRITE Reveal and STARBRITE Reveal AQ Vacuum Metallized Flake Pigments

Vacuum metallized pigments offer color stylists, formulators and applicators with the eye-catching effects demanded in the graphic arts and coatings industries. Silberline's STARBRITE series provides formulators with different looks due to its exceptionally high surface area, aspect ratio and pigment thickness. This series ranges from the 2100 high whiteness product to the mid-range smooth, chrome-like metallic of the 4102 and 4172 series to the high coverage, ultimate mirror effect of 6108.

For over 70 years,

Siberline has been an industry leader in providing metallic pigments to the coatings market. Our industrial coatings portfolio is comprised of a broad range of grades of high performance metallic pigments designed for the unique needs of the industrial coatings industry.

- **STARBRITE** The unique characteristics of STARBRITE offer high quality, consistent performance and a smooth and brilliant finish. Common applications include auto parts and accessories, wheels, automotive interiors, screen printing and solventborne industrial coatings.
- **STARBRITE Reveal** features broader solvent compatibility, and demonstrates good adhesion on problem substrates making it easier to use. It is ideal for reverse printing or coating for mirror-like effects. Common applications include spray coat or screen printing for electronics, auto parts and accessories, wheels, automotive interiors, labels, packaging and solventborne industrial coatings.
- **STARBRITE Reveal AQ** provides true liquid metal appearance in waterborne systems with good gassing stability, excellent opacity at low loading levels and easy dispersions in water, alcohols and glycol ethers. Common applications include waterborne industrial coatings, spray coatings, automotive finishes and interiors, wheels, auto parts, printing inks and cosmetic packaging.



STARBRITE Series Pigment Characteristics

Grade	Metal Content Percentage	Diameter (50%) Microns	Specific Gravity	Covering Power	Shade/Appearance
2100EAC	10	10	0.96	Lowest	White, brushed metal
4102EAC	10	12	0.96	Mid-range	Very highly reflective, mid-shade
Reveal 4102EAC	10	12	0.96	Mid-range	Very highly reflective, mid-shade
Reveal AQ 4172-PA	17	12	0.91	Mid-range	Very highly reflective, mid-shade
Reveal AQ 4172-PM	17	12	1.03	Mid-range	Very highly reflective, mid-shade
5102EAC	10	12	0.96	High	Exceptionally highly reflective, near chrome-like
6108EAC	10	8	0.96	Highest	Ultimate reflectivity and chrome-like appearance

Shelf life—2 years

STARBRITE Reveal Starting Point Formulations

In all cases dispersion with minimal shear minimizes flake damage and gives brighter, more consistent results.

Inks

- Typical solvent ink resins: Nitrocellulose, PVB, and Acrylic
- Total solids: <15%
- Pigment: Binder ratios 1:1 to 1:2

Maximizing the result

- Ensure that substrate is very smooth.
- Ensure printing method does not filter out the flakes.

Coatings

- Typical solvent coating resins: Acrylic, Urethane
- Dry film thickness: <10µm
- Pigment: Binder ratios 2:1 to 1:4

Maximizing the result

- Ensure substrate is very smooth and very coating receptive.
- Ensure application method allows smooth flow out or apply on the reverse for optimal mirror effect.
- Additives for flow and antifoaming must be checked to ensure that the appearance is not negatively affected.



STARBRITE Series Solvent Availability

Solvent Carriers	STARBRITE	STARBRITE Reveal	STARBRITE Reveal AQ
Ethyl Acetate	•	•	
Glycol Ether EB	•	•	
Isopropyl Alcohol		•	•
Ethyl Alcohol		•	
Glycol Ether PM		•	•
Glycol Ether PM Acetate	•	•	
N-Propyl Acetate	•	•	

Shelf life—2 years

STARBRITE Reveal AQ Starting Point Formulations

In all cases dispersion with minimal shear minimizes flake damage and gives brighter, more consistent results. If excessive shear is used, flakes could be ruptured and gassing would result. Tests for gassing resistance in the finished formulations should be run.

Inks

- Typical aqueous ink system
- Total solids: <50%
- Pigment: Binder ratios 1:1 to 1:2

Maximizing the result

- Ensure that system is not too alkaline or acidic.
- Ensure substrate is very smooth and coating receptive.
- Ensure application method allows smooth flow out or apply on the reverse for optimal mirror effect.
- Additives for flow and antifoaming must be checked out to ensure that the appearance is not negatively affected.

Coatings

- Typical 1 K Acrylics
- Total solids: <50%
- Pigment: Binder ratios 0.5:1 to 1:1

Maximizing the result

- Ensure that system is not too alkaline or acidic.
- Ensure substrate is very smooth and coating receptive.
- Ensure application method allows smooth flow out or apply on the reverse for optimal mirror effect.
- Additives for flow and antifoaming must be checked to ensure that the appearance is not negatively affected.

Incorporation technique, application method, substrate and drying systems can all have a major effect on the results obtained with vacuum metallized flake materials. Silberline's product application engineers and technical service teams 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 advanced technical and manufacturing center, we can help customers solve their most challenging coatings problems.

Packaging

- 200 g sample
- 3 kg pails
- 20 kg pails

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, ink or plastics, contact The Architects of Light at your local office below or visit www.silberline.com.



North America

Silberline Global Headquarters

130 Lincoln Drive
Tamaqua, PA 18252
USA

Phone: 570-668-6050
Toll-Free (USA & Canada): 800-348-4824
Fax: 570-668-0197
E-Mail: order@silberline.com



Ernest Scheller III Center for Technical Functions and Advanced Manufacturing

36 Progress Avenue
Tamaqua, PA 18252
USA

Phone: 570-668-6050
Toll-Free (USA & Canada): 877-492-7881
Fax: 800-828-9855

Silberline Customer Care Center

4905 W. Tilghman Street, Suite 110
Allentown, PA 18104
USA

Phone: 570-668-6050
Toll-Free (USA & Canada): 800-348-4824
Fax: 800-828-9855
E-Mail: order@silberline.com

Silberline Manufacturing Facility

2010 Guy Brown Drive
Decatur, IN 46733
USA

Phone: 570-668-6050
Toll-Free (USA & Canada): 800-348-4824
Fax: 260-728-2589

Silberline Sales Office – Mexico

Silberline Pigmentos, SRL de CV
Blvd. Atlixcayotl Torre Bosques II
#5320-200
Reserva Territorial Atlixcayotl
San Andres Cholula
Puebla – CP 72810
Mexico
Phone: 52-222-2252774

Asia Pacific

Silberline Asia Pacific Pte. Ltd.

50 Science Park Road
#04-01/02 The Kendall
Singapore Science Park II
Singapore 117406

Phone: 65-6411-0170
Fax: 65-6779-0080
E-Mail: sapmkt@silberline.com

Silberline Pigment (Suzhou) Co., Ltd.

Suzhou Industrial Park
Room 704, Building 1
Zhong Yin Hui Long Plaza, No. 8
Suzhou Avenue West
Suzhou, Jiangsu Province
China 215021

Phone: 86-512-6733-3150

Silberline Yasida Pigments (Jinan) Co., Ltd.

CaoFan Town
Zhangqui, Shandong Province
China 250221

Phone: 86-531-8887-0325
Fax: 86-531-8376-0199
星铂联雅思达颜料（济南）有限公司
山东省章丘市曹范镇 250221
电话: 86-531-8887-0325
传真: 86-531-8376-0199

Silberline Specialty Effect Pigments India Pvt. Ltd.

Level 8, Vibgyor Towers
C-62, Block G
Bandra Kurla Complex
Mumbai 400098
India
E-Mail: sapmkt@silberline.com

South America

Silberline Brasil Limitada

Rue Dr. Tirso Martins, 100, Cj. 701
Vila Mariana
Sao Paulo – Cep. 04120-050
Brazil

Phone: 55-11-3562-2780
Fax: 55-11-3562-2783



Europe/Africa

Silberline Limited

Banbeath Road
Leven, Fife
Scotland KY8 5HD
Phone: 44-1-333-424734
Fax: 44-1-333-421369
E-Mail: euinfo@silberline.com



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