

SpectraFlair® Light Diffractive Pigments

Silver 1500 Series



SpectraFlair®
PIGMENT TECHNOLOGY

Key Features

- Opaque, ultra-thin, diffractive microflakes
- Iridescent, liquid-silver appearance in low illuminations
- Vivid, multi-rainbow colors in bright light

Applications

- Enhance product design, appeal, and differentiation
- Easily incorporate into paints, coating, plastic and synthetic materials
- Wide use in automotive and consumer products industries

SpectraFlair pigments are light diffractive colorants that generate the appearance of multiple, bright rainbow producing prisms moving over a liquid silver color. The combination of rainbow-like color, aluminum core and fine particle size in SpectraFlair pigments create the appealing, iridescent, liquid silver metallic appearance. SpectraFlair pigments change from a typical metallic paint appearance in low illumination, to vivid, multi-rainbow paints in direct bright light.

SpectraFlair pigment is a unique material consisting of an ultra-thin, diffractive pigment in the form of micron size flakes. It is opaque, thin, highly specular (mirror-like) and exhibits a rainbow-like diffraction effect.

The color effect produced by SpectraFlair pigment is generated by the diffraction of light waves due to the material's uniquely textured surface. Due to its high flake-diameter-to-thickness ratio, SpectraFlair pigment also has excellent leafing properties, thus creating a high level of specular reflection.

Specifications

Parameter	Silver 1500-14	Silver 1500-20	Silver 1500-35
Chemical nature	Magnesium fluoride-coated aluminum mixture		
Certifiable Properties			
L* ¹	77 to 83	75 to 84	76 to 85
C* ¹	0 to 2.5	0 to 2.5	0 to 2.5
L* ¹ Standard	79	79	80
C* ¹ Standard	0.85	1.2	1.2
Particle size - D50 ²	12 to 16 µm	18 to 22 µm	31 to 35 µm
Particle size - D99 ²	≤50 µm	≤80 µm	≤130 µm
Typical Properties			
Specific surface area ³ (m ² /gram)	0.45	0.45	0.45
Dry specific gravity (H ₂ O=1.0 g/cm ³)	2.8	2.8	2.8

1. JDSU Test Method 21074545 and JDSU Test Method 21074804

2. JDSU Test Method 04092004-J7BI-BP3K

3. Specific area reported is the theoretical coverage of a monolayer of pigment flakes

Ordering Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-707-525-7007 in North America and +800-5378-JDSU worldwide or via e-mail at spectraflair@jdsu.com.

Sample: 10095222

Product Code	Appearance
10095222	Silver 1500-14 (bright rainbow prism over liquid silver color – fine grade)
10095214	Silver 1500-20 (bright rainbow prism over liquid silver color – standard grade)
10095215	Silver 1500-35 (bright rainbow prism over liquid silver color – coarse grade)

Notes:

- The information furnished above has been compiled from sources considered to be dependable and is believed to be accurate. However, users should conduct confirming tests in their own plant or laboratory to determine suitability, as conditions for use are not under our control. JDSU makes no guarantee as to the results obtained in using the material, and shall not be held liable for any damages resulting from mixing or further processing that is inconsistent with recommended usage. Because we cannot control the application, use, or processing of the products, we cannot accept responsibility. No statement contained herein should be construed as a recommendation for any use which would violate any patent rights.
- Additional safety information is contained in the product's Material Safety Datasheet, which all users are strongly urged to consult.
- Approvals: SpectraFlair pigment is made entirely of components registered with leading international authorities including EINECS, MITI, TSCA, DLS, Canadian DSL and AICS, and does not require its own registration.