

# SpectraFlair® Light Diffractive Pigments

## Silver 1400 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 1400
Chemical nature	Magnesium fluoride-coated aluminum mixture
<b>Certifiable Properties</b>	
L* <sup>1</sup>	80 to 83
C* <sup>1</sup>	0 to 1.1
L* <sup>1</sup> Standard	81.6
C* <sup>1</sup> Standard	0.75
Particle size - D50 <sup>2</sup>	18 to 22 μm
Particle size - D99 <sup>2</sup>	≤81 μm
<b>Typical Properties</b>	
Specific surface area <sup>3</sup> (m <sup>2</sup> /gram)	0.45
Dry specific gravity (H <sub>2</sub> O=1.0 g/cm <sup>3</sup> )	2.8

1. JDSU Test Method 06172004-G61Y-WI6I and JDSU Test Method 04092004-R3YE-5BIN
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](mailto:spectraflair@jdsu.com).

**Sample: 10095133**

Product Code	Appearance
10095133	Silver 1400 (bright rainbow prism over liquid silver color – standard grade)

**Notes:**

1. 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.
2. Additional safety information is contained in the product's Material Safety Datasheet, which all users are strongly urged to consult.
3. 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.