

# GLOW-IN-THE-DARK PRODUCTS

Phosphorescent Masterbatches and Compounds from RTP Company

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## Quick Information

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- ▶ Enhance and differentiate your products
- ▶ Tailor for brightness and glow longevity
- ▶ Design for specific safety regulations

Imagine a family of plastic products with intriguing, glow-in-the-dark effects, one that offers multiple options in glow duration, intensity, color and price. At RTP Company, we not only imagined it, we made it a reality.

Phosphorescent pigments absorb ultraviolet light and slowly emit this energy over time. The effect is best achieved with clear or translucent resin systems such as: elastomers, acrylics, polycarbonates, styrenics and polyolefins.

New classes of pigments allow for longer glow life; some compounds can last up to ten times the industry standard. The most effective way to re-charge these compounds is to expose them to direct ultraviolet rays.

**Type one** differs from the “standard” grade by the way in which it is activated. This new grade activates much quicker, and requires less light, than the standard grade. This enables the pigment to be used in applications that involve short exposure to light or a light source that has low UV output. Typical applications would include trunk release handles for cars, safety markings for firemen, tunnel evacuation routing, and in home products. **Type two** requires approximately one hour of high UV light to charge. Typical applications would include exit signs, outdoor signs, and outdoor safety equipment.

Glow-in-the-Dark products are perfect for a variety of applications including: electronics, consumer goods, athletic and sporting goods, and safety equipment and signage. Some products can be laser marked to produce permanent imprints of characters, numbers, or symbols.

Color options are extensive. Designers are no longer limited to the typical yellow-green or off-white hues; colors range from light blue and hot pink to vivid greens and peaches. Combining glow-in-the-dark with fluorescent pigments amplifies the effect. RTP Company offers both masterbatches as well as custom compounds to meet your glow-in-the-dark needs.

RTP Company’s phosphorescent products are an effective alternate light source to eliminate expensive wiring and lighting systems in applications such as signs, railings, armrests, or automotive instrument panels. Combining the power of this color technology with laser marking creates letters, symbols, and instructions that are actually illuminated by the surrounding material.

Glow-in-the-Dark products from RTP Company... another innovation from the leader in specialty compounding.



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**The Leader in Specialty Compounding**

### Manufacturing Facilities:



Winona, MN  
South Boston, VA  
Fort Worth, TX  
Indianapolis, IN  
Beaune, France  
Singapore  
Suzhou, China

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## Case Study: Firefly™ Dots

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**Challenge:** Create an innovative and inexpensive photoluminescent material that meets or exceeds common photoluminescent safety and egress standards, specifically those set by the American Public Transport Association (APTA) and the New York City Department of Buildings.

**Solution:** Engineers at RTP Company worked with International Name Plate Supplies, Ltd. (INPS) to develop a high performance glow compound that would meet the standards for egress markings.

**Result:** RTP developed two custom compounds for INPS that surpassed the recommended photoluminescent standards. As a result, 90,000 photoluminescent Firefly™ dots made from an injection molding RTP 300 Series will be used for an automated floor installation that will far exceed the APTA luminance requirements. Additionally, INPS's Firefly™ products (RTP 1200 Series), in continuous lengths, will be installed in other rail cars.



Read the full story of the Firefly™ products in the June 2005 issue of Compounding Lines.

## Glow-In-The-Dark Masterbatch Products

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Number	Description	Base Resin	Compatible with
GCX 111274	45% Loaded	PC	PC
GCX 111278	50% Loaded	PP	Polyolefins, TPO
GCX 111279	50% Loaded	ABS	SAN, ABS

Available in Masterbatch Compounds and Cube Blends

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