

# GLOW IN THE DARK PAINT TDS

**Product Name:** Permanent Glow-in-the-dark Paint (Technically called Photoluminescent Paint)

- The “Permanent” in the name is to distinguish this product from our Glow-in-the-dark body Paint.

**Individual Products:** GID Green, GID Aqua-blue, UV & GID Yellow/Green

## **1. Active nature of the products**

These paints absorb energy from light and then emit the energy slowly. The emitted energy is visible as a glow-in-the-dark in dark conditions. The products are not radioactive. The mechanism of energy storage and emission involves excitation of electrons to higher energy levels within the molecule and their subsequent return to lower energy levels while emitting energy in the form of visible light.

## **2. Appearance**

**GID Green** is a pale green colour and glows a luminescent green in the dark. This product has the brightest glow.

**GID Aqua-blue** is a pale green colour and glows a luminescent turquoise blue in the dark.

**UV & GID Yellow/Green** is a bright neon (fluorescent) yellow colour, glows yellow under UV light and glows a luminescent green in the dark.

## **3. Brightness and duration of glow**

Before the paint will glow it must be charged or activated by light. High energy light sources such as sunlight and UV light charge the paint very quickly; even in a matter of a few minutes. Low energy light sources charge the paint much slower.

After charging, the paint glows brightly for a period of about 30 minutes and then enters an after-glow phase during which the glow gradually fades away over about 12 hours. The actual glow can be measured for almost 200 hours but practically the glow last about 12 hours. After eight or so hours the environment must be pitch dark, with a person’s eyes accustomed to the dark, to see the glow.

These paints emit a subtle glow and not a bright light. They are not recommended for use in areas with night lights such as near street lamps.

GID Green emits the brightest glow. GID Aqua-blue and UV & GID Yellow/Green are somewhat less bright. Yellow/Green is highly visible in dim light due to its bright neon yellow colour. It is both Fluorescent and Luminescent.

## **4. Durability**

These paints are highly durable with a life expectancy of over 12 years. The strength of the glow is hardly impacted by aging.

The binder used is a UV resistant pure acrylic, adhesion promoted binder.

GID Green and GID Aqua-blue are suitable for Interior and Exterior applications.

UV & GID Yellow/Green is only suitable for Interior conditions as the bright neon yellow colour will fade in sunlight (it will however still glow green in the dark after the neon yellow colour has faded).

## **5. Application**

Apply to white or light coloured surfaces. Paint darker surfaces with a white acrylic paint first.

This paint has multiple surface adhesion technology and is thus suitable for many surface types. For best durability prepare and prime surfaces as for normal acrylic/PVA paint.

Metals and exterior wood require priming first. Oil based paint & glossy surfaces require application of a Universal Undercoat first. Lightly sand plastics first but not all plastic types can be painted directly with these paints.

The paint has high viscosity and 2 thick coats should be applied with a paint brush. Wait 4 hours between coats. Spread Rate should be 4-5 square meters per litre per coat.

Wash up with water immediately after use.

It is not necessary to apply a clear over-coat over this paint but in demanding applications you can apply our non-UV absorbing Clear Top Coat to help keep the glow paint clean. Examples of demanding applications where our Clear Top Coat is recommended include painting of floors and handrails.

## **6. Safety and Environmental**

The paints are non-radioactive.

The paints are non-flammable as they are water based paints. They contain a small amount of solvent but far less than conventional oil based paints meaning that their odour is a lot lower. The paints are as safe to use as normal high quality acrylic wall paints. They don't contain lead, nonylphenyl ethoxylate, ethylene glycol or white spirits that commonly make water based paints less environmentally friendly.

**Revised: 9 May 2023**