

Art, Craft & DIY – Bioglitter® Application Guide

EU Regulation 2023/2055 (EU Microplastic Legislation)

Following the amendments to EU Regulation 2023/2055 published on 1 June 2026 (Regulation (EU) 2026/1168), paints, glues, slime, dough and modelling materials containing glitter with an intended period of use of less than 12 months are now within the scope of the amended fixed-matrix provisions.

From 22 June 2028, synthetic polymer particles intentionally added to these products must meet the requirements of the Regulation. Finished products containing non-compliant glitter cannot be placed on the EU market for these applications after the applicable transition period.

Loose glitter: non-compliant loose plastic glitter for consumer arts and crafts has already been restricted from sale in the EU since 17 October 2023.

Bioglitter® is compliant with EU Regulation 2023/2055 and provides manufacturers with a plant-based alternative to non-compliant glitter, delivering strong sparkle and distinctive effects without relying on the fixed-matrix derogation.

Why Choose Bioglitter®?

- **Fully compliant with EU Regulation 2023/2055** governing synthetic microplastic particles.
 - **Made from plants** and designed to biodegrade quickly and safely in natural environments.
 - **Patented Bioglitter® technology**, manufactured in Germany exclusively by Sigmund Lindner GmbH.
 - **Exceptional sparkle, colour and effect intensity**, providing a premium alternative to non-compliant glitter.
 - **Wide choice of effects**, including metallic, holographic, opaque, opalescent and neon finishes.
 - **Suitable for paints, glues, slime, dough, modelling materials and loose-glitter craft products** and many other decorative applications.
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Using Bioglitter® in Art, Craft & DIY Products

Bioglitter® can be supplied for direct incorporation into water-based craft formulations or as a dry component for the consumer to mix into a separate wet product. The best route depends on the product range, required shelf life, formulation chemistry and desired visual effect.

Recommended Product Ranges

For Direct Incorporation

- **Deco Bioglitter® SPARKLE V3** – stable metallic-effect option for mixing into paint, glue, slime, dough and modelling materials.
- **Deco Bioglitter® PURE V2 Color & Opal** – translucent, pearlescent and opalescent non-metallic effects.
- **Deco Bioglitter® PURE V2 Opaque** – solid matte effects, including Black and White.

PURE V2 products produce a unique glitter effect unlike any glitter effect seen before, even in conventional glitters.

For Separate Sachet Supply

- **Deco Bioglitter® SPARKLE PF** – brightest metallic effect with high sparkle and coverage.
- **Deco Bioglitter® SPARKLE 60 (Deco60)** – brightest economical metallic-effect option.

SPARKLE PF and SPARKLE 60 generally do not provide the storage stability required when pre-mixed into wet art and craft formulations. SiLi can therefore supply these grades in bespoke sachets to be packed alongside the wet product and mixed by the end user immediately before use.

Recommended Bioglitter® Particle Sizes

- **008** – approximately 0.2 mm; fine sparkle and good distribution.
- **015** – approximately 0.4 mm; brighter, more distinct sparkle.
- **040** – approximately 1.0 mm; bold decorative effect.

For loose glitter craft products, 040 is the most typical size. For products mixed into a wet base, 008 and 015 are commonly selected, although 040 can also be evaluated where the formulation can suspend the larger particles.

Formulation Considerations

- Use transparent or translucent mass-tone colorants and fillers wherever possible in wet formulations. Opaque pigments and fillers can mask or completely obscure the glitter effect.
- Select a Bioglitter® colour that complements or matches the mass-tone colour of the base.
- Check suspension stability: larger particles may settle in low-viscosity paints, glues or slime systems.
- Add Bioglitter® at low shear and as late as practical in the manufacturing process to protect the decorative coating on the Bioglitter®.
- Confirm compatibility with preservatives, surfactants, pH adjusters, colorants and other formulation components.

Starting-Point Tempera Paint Formulation

The following water-based formulation is provided as a laboratory starting point. It has been updated to use EU Regulation 2023/2055-compliant Deco Bioglitter® SPARKLE V3 or PURE V2 products.

Ingredient Type	Example / Guidance	% w/w
Water	Deionised water; adjust for colourant addition	86.60*
Acrylic copolymer	BASF Solcar® SC81UP or equivalent	5.75
Defoamer	Nymco Fluxair® or equivalent	0.05
Glycerine	Humectant	4.00
Neutralising amine additive	Eastman Vantex® T or equivalent	1.00
Deco Bioglitter® SPARKLE V3 or PURE V2 – 008	Colour selected to complement the mass tone	1.00
Deco Bioglitter® SPARKLE V3 or PURE V2 – 015	Colour selected to complement the mass tone	1.00
Preservative	Thor Acticide® PHE / LANXESS Preventol® CMK or equivalent	0.60
Transparent mass-tone colourant	Adjust to the required shade	q.s.*

***Batch total:** reduce the water by the quantity of mass-tone colourant added so that the finished formulation totals 100% w/w.

Important: commercial ingredient names are examples only. Confirm supplier recommendations, permitted use levels and compatibility for the intended market and age group.

Suggested Manufacturing Sequence

1. Charge the water and begin gentle mixing.
2. Add the acrylic copolymer, glycerine, defoamer and neutralising additive in accordance with supplier guidance.
3. Add the transparent mass-tone colourant and adjust the shade.
4. Add the preservative and confirm the required pH and viscosity.
5. **Add Bioglitter® last** using low shear, mixing only until evenly dispersed.
6. Allow the batch to de-aerate, then carry out stability, suspension, microbial and application testing.

SPARKLE PF and SPARKLE 60: Make-and-Use Approach

Where maximum metallic sparkle is required, supply SPARKLE PF or SPARKLE 60 in a separate sachet or tube alongside the paint, glue, slime, dough or modelling material. The end user then adds and mixes the glitter shortly before use.

Once mixed, the effect may remain useful for weeks / months, depending on the formulation and storage conditions. This is an indicative range only: colour stability, sparkle retention, viscosity and microbiological stability must be validated in the exact finished formulation and pack.

Evaluation Programme

- Assess appearance immediately after mixing and at planned intervals throughout the target shelf life.
- Monitor colour bleed, sparkle retention, settling, viscosity change, pH and odour.
- Test at the intended storage temperatures and in the final consumer packaging.
- Confirm that the product can be mixed safely and uniformly by the intended user.
- For coloured SPARKLE PF or SPARKLE 60, evaluate Silver or Holo Silver first as a compatibility benchmark before progressing to colours.

Packaging Options

SiLi offers all Bioglitter® products in bulk packs from 1 kg to 25 kg, together with bespoke sachet-packing formats.

Deco Bioglitter® SPARKLE 60 (Deco60) is also available in consumer-ready formats: 50 g shaker pots, 8–10 g shaker tubes and 2–3 g tubes.

Please discuss fill weights, pack design, order quantities and market requirements with your SiLi representative.

Use of the Bioglitter® Logo



The **Bioglitter® name and logo** are registered trademarks of Sigmund Lindner GmbH and are recognised throughout the industry as a mark of authentic Bioglitter® technology. Customers using genuine Bioglitter® products are encouraged to use the official Bioglitter® logo on packaging, websites and marketing materials, subject to approval from Sigmund Lindner GmbH and in accordance with the current Brand Guidelines.

The logo helps distinguish products made with authentic, patented Bioglitter® technology from products described generically as biodegradable glitter. It also supports communication that the glitter used is compliant with EU Regulation 2023/2055.

Please contact your Sigmund Lindner representative to obtain approval, the correct logo files and the latest Brand Guidelines before using the Bioglitter® logo.

Disclaimer

The information contained in this document is based on our current knowledge of Bioglitter® products together with practical experience in art, craft and DIY formulations and is provided for guidance only.

Materials, formulations, equipment and processing conditions vary considerably. Customers are responsible for carrying out their own trials to determine the suitability, performance, safety and regulatory compliance of Bioglitter® in the intended finished product before commercial production.