Volupte Studio Mix Design Manual

For Circular, Sustainable Wall Finishes Using Recycled Plaster

Introduction

Welcome to the **Mix Design Manual** for *Circular Design for Interiors*. At Volupte Studio, we believe in giving new life to discarded materials through beauty and intention. This guide will teach you how to mix recycled plaster for interior finishes using circular design principles. It includes foundational ratios, practical tips, and adaptable recipes based on local, low-carbon, and reused materials.

🧱 1. Basic Plaster Components

Component	Function	Sustainable Options
Binder	Binds the mix together	Recycled gypsum, air lime, natural clay
Aggregate	Adds structure, texture, body	Sand, ceramic waste, marble dust, brick powder
Water	Activates the binder, workability	Clean tap water, preferably at room temp
Additives (opt.)	Improve workability, adhesion, or finish	Natural fibers, pigments, oils, casein, soaps

2. Standard Base Mix Recipe

Interior Wall Finish – Smooth Coat

- **1 part binder** (e.g., recycled gypsum)
- **2.5 to 3 parts aggregate** (e.g., fine river sand or ceramic dust)

- **Water as needed** (add slowly to achieve creamy texture)

💡 **Consistency Tip:** Ideal texture is like yogurt or cake frosting — it should hold shape but spread easily with a trowel.

🧪 3. Mix Variations Based on Use

✨ Textured Base Coat

- 1 part recycled gypsum
- 2 parts brick powder
- 1 part coarse sand
- Water to desired texture
- Optional: 5% chopped straw or flax fibers for crack resistance

🌿 Breathable Lime-Gypsum Finish

- 60% recycled gypsum
- 30% air lime (non-hydraulic)
- 10% marble dust
- Pigment as desired
- Natural soap or wax as sealer (optional)

🎨 Pigmented Decorative Coat

- 1 part recycled gypsum
- 2 parts fine sand or marble dust
- Iron oxide, ochre, or natural pigment (1–3% of binder weight)
- Optional: small amount of linseed oil for softness

🔁 4. Local & Low-Carbon Substitutes

If You Can't Find	Try Using Instead
Fine sand	Crushed local bricks, ceramic waste, marble powder
Recycled gypsum	Lime + clay combo (test shrinkage!)
Marble dust	Sifted white sand or ceramic powder
Commercial pigment	Burnt wood ash, red earth, turmeric, spirulina
Linseed oil	Olive oil soap, beeswax, casein
Straw/flax fiber	Paper pulp, coconut coir, cotton scraps

🔍 **Note:** Always sieve substitutes to remove large particles, and test new mixes before application.

5. Mixing Instructions

1. **Dry Mix First**
   Combine binder + aggregate + pigments or additives. Mix until homogenous.

2. **Add Water Gradually**
   Pour a little water and begin mixing. Add more in small amounts until you reach desired consistency.

3. **Rest & Re-Mix** (Especially with lime)
   Let mix sit for 5–10 mins, then stir again to break air bubbles and improve spreadability.

4. **Use Promptly**
   Recycled gypsum can set fast (20–30 mins). Mix only what you can use within that time.

🛠️ 6. Tools Checklist

- Buckets (for mixing)
- Trowels and spatulas
- Sieves (1–3 mm)
- Measuring containers
- Gloves & masks (for powder)
- Pigment scale or spoon

7. Sample Testing Tips

- **Color Test:** Apply a small area to see how pigments change when dry.
- **Crack Test:** Apply to cardboard or plywood. Check for shrinkage or cracking in 24 hrs.
- **Adhesion Test:** Try a sample on your wall type (brick, cement, drywall) before applying full coverage.

8. Mix Design Journal (Recommended)

Keep a journal or sheet with:

- Date
- Ratios used
- Materials sourced
- Notes on color, texture, and performance
- Environment (humidity, temp, etc.)

This helps you refine your recipes and adapt them locally over time.

✅ 9. Safety & Sustainability Tips

- Wear gloves and a dust mask when working with dry powder.
- Use greywater or captured rainwater when available.
- Reuse rinse water for cleaning tools when possible.
- Store unused mix dry in sealed containers.
- Compost or safely dispose of scraps—avoid washing down drains.

💔 10. Final Thoughts

Your mix is a material story: of waste reimagined, beauty made circular, and design made to last. The more you test, experiment, and refine with intention, the stronger your finishes—and values—become.