

# craigowl

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Registered in England. Registered Number 3119526. VAT Registration No. GB 657 8649 72

## PRODUCT INFORMATION

### Cellu-fiber

**Description:** **Cellu-fiber** grades are made from pure cellulose, ground to various particle sizes, for use in Paperclay and Papier Maché applications

**Properties:** **Cellu-fiber** grades are made from 100% micronised virgin wood pulp, manufactured using a chlorine-free bleaching process. **Cellu-fiber** grades are **NOT** made from recycled paper, and therefore contain no ink, coating residues, cationic wet/dry strength resins or dyes, and have an inherently high zeta potential. **Cellu-fiber** grades are **NOT** insulation grade cellulose fibre. In Paperclay applications, **Cellu-fiber** grades will "burn out" cleanly in the kiln at 230-250C. Insulation grade cellulose will not reach "burn out" until nearly 1000C, and may give rise to toxic fumes. **Cellu-fiber** grades have high Alpha Cellulose content, high whiteness and very low ash and lignin content. Use **Cellu-fiber** grades in applications where you need consistent, reproducible results. No more waste paper collection & storage, shredding, soaking, pulping, variable quality, ink & dye contamination.

#### Preparation method :

**Paperclay** - There are three make up methods in common use

- 1) Dry blend the Cellu-fiber and clay before adding water.
- 2) Wet out the Cellu-fiber and add it to the clay slip.
- 3) Add the dry Cellu-fiber to a clay slip made up with excess water.

All of these methods work, and, if you have a favourite, please use it. Our recommendation would be to use method number 3). The physical structure of **Cellu-fiber** is similar to a tiny straw, which sucks in (absorbs) the liquid slip, leaving only the straw wall to burn out in the kiln. If water is added to the fiber, then the water, rather than the slip, is absorbed into the internal void, and the void space after burnout is the entire "straw" diameter, rather than just the wall, perhaps reducing the strength of the finished article. For all methods, you can use anything from 5% to 50% of **Cellu-fiber** (by volume) to slip ratio. Most commonly used ratios are between 20% and 30%. Make sure that you break up any clumps of **Cellu-fiber** formed by the packing process, to ensure even distribution throughout the slip.

**Papier Maché** – Make up a thin solution of adhesive to use as a binder, then add enough dry **Cellu-fiber** to this, to make a stiff dough. Suitable adhesives are:

- 1) standard wall paper adhesive from your local DIY store. This is easy to make up, but generally contains a fungicide to prevent mould growth behind the wallpaper, and thus may not be suitable for use by children.
- 2) Basic starch. This needs boiling before it will work, and is not really practical, unless you can find any pregelatinised material. Generally, these do not contain any fungicide or biocide, and will start to ferment quite quickly at room temperature.
- 3) "white" PVA wood glue. Easily available from your DIY store, but relatively expensive, and very difficult to remove if it gets anywhere it shouldn't. (your hands!) A small amount added to Cellu-gum will give a degree of water resistance to the Papier Maché. Alternatively, paint it on to the surface of the finished dry article, to give a similar effect.
- 4) **Cellu-gum** – grade MVP is suitable, and makes smooth solutions at low concentrations, typically 1% to 2% by weight. **Cellu-gum** can also be used at 0.5% or less, by weight, to stabilise slip in Paperclay manufacture.

Use thin layers if you can. The thicker the layer, the longer it will take to dry out.

**Caution :** Always store **Cellu-fiber** grades in a dry place, and out of strong sunlight. If you allow the product to get wet, it may begin to degrade, develop mould contamination, and give rise to undesirable odours. In dry storage, and original packaging, **Cellu-fiber** grades have a shelf life in excess of 2 years. Exposure to strong sunlight may discolour the product. If it is essential to store **Cellu-fiber** in a wet condition, it is recommended that you add a commercial biocide.

**Safety :** **Cellu-fiber** is derived from managed renewable resources, and is characterised by a very low order of toxicity. A detailed safety data sheet is available separately. You are recommended to use a dusk mask when handling dry Cellu-fiber.



Note : Whilst the information contained in this bulletin is accurate to the best of our knowledge, it implies no guarantee, and freedom from patent restrictions cannot be assumed. It is recommended that tests are carried out to ensure the suitability of this product for particular applications.