

# Modroc: Best Practice Instructions

Modroc is a plaster impregnated gauze designed to aid the healing of bones in the medical profession and is also used widely in the education and craft worlds for creating models due to its beneficial chip resist and drying qualities.

Modroc can be modelled around wire netting, foil, newspaper etc or on a former such as a mannequin.

*Tip: If you use an absorbent surface as a former you will need to cover it in cling film or Vaseline first to avoid sticking.*

Estimate the amount of material needed and cut into smaller workable strips. You need about 3 layers but if you find that your model is a bit uneven in places or requires additional strength; you can always add more.

You need a shallow tray of water to immerse the modroc in. Make sure the water is clean as setting time is affected by this.

**Important:** Modroc absorbs moisture so you need to keep the unused material away from water or moisture in the air.

The temperature of the water also affects setting time - cold water slower, warm water quicker.

*Tip: Dissolve a small amount of PVA glue into the water to make it cloudy. This will bind with the modroc when dipping and strengthen it when it is dried.*

Immerse a strip of modroc in the water for 3 seconds saturating the plaster (try to avoid too much movement which may dislodge some plaster from the scrim).

Lift the strip out of the water and run through the fingers to squeeze out the excess. Do not wring out – you'll end up with a tangled piece of material.

Start layering each piece on your former and smooth down. Work one area/layer at a time because after 3-4 minutes the plaster will begin to set and will be unworkable.

*Tip: If working in particularly warm conditions the setting time may be faster so you'll have to work more quickly. Ensure you use cold water in this case which will give you more time to work.*

**Important:** Do not keep working the modroc when the plaster is beginning to set because it will damage the structure and will dry weakened. This can be identified by a crumbly finish.

After about 15 minutes or when the plaster looks set, it may be removed from the former, though if in any doubt & to avoid cracking it is advised to let it dry completely first; especially if delicate.

To ensure modroc is completely dry and at its strongest it is best to leave overnight before moving.

For thicker or larger sculptures with more layers; drying time may be extended. To check that plaster is completely dry it should be stiff, porcelain white in colour with no darker patches.

*Tip: tap it with your finger and listen for the sound; after practice you will soon be able to tell whether it's dry. In addition; if you scratch it with your nail it should not make a mark.*

Extra modroc can be applied to the dry model/sculpture though will not have as much strength as if added when wet.

Once dry the plaster can be painted and decorated and edges trimmed or filed to a smooth finish.

*Tip: As plaster is very absorbent; depending on the finish you require you may want to seal it first with varnish for the paint to sit on. Ensure it is completely dry before sealing.*

Another effective method is to paint it with diluted inks and watch the colours spread!

The trick is to work fast, experiment and have fun making your creations.

# Modroc: Safety

**Important:** Modroc and plaster can dry the skin or cause irritation if in contact over a period of time so ensure students use gloves when handling this product.

Due to only a thin layer of plaster of paris, the heat generated by MODROC is lower than normal plaster of paris thus avoiding a potential burn situation; however we advise users (especially children or students) not to encase body parts but to first create a former in clay or foil due to possible irritation.

**Use in industry:** Experienced model makers, sculptors and artists will use special silicone/alginate to cast directly onto skin then with modroc (3 layers apx) on top to act as a shell jacket. Please be aware that this is an industry practice to be used only when all other health and safety considerations/requirements have been met.

**Please consult your head of school for advice on your particular H&S protocols.**



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