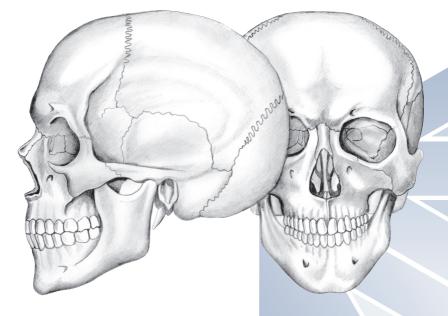
neurosurgery

# Mendec<sup>®</sup> Cranio



### Acrylic resin for repairing cranial defects



## Plasticity at your service RANIO

Tecres produces PMMA-based medical devices since 1986.

**Mendec Cranio** is the acrylic resin optimized for cranioplasty use and it is a sure remedy for the closure of small cranial defects directly *in situ*.

The product can be easily moulded and is perfectly adaptable to precise and safe manipulation.

After the hardening of cement is possible to drill and prepare it for prosthesis fixation with plates and screws or suture wires.

MENDEC Cranio resin is available in 20g package with barium sulphate as radiopaque agent.

The special 3:1 ratio between powder and liquid, and the particular powder-making technique provide important advantages:

#### Ease of use:

thanks to its special characteristics, the resin reaches an optimal plastic consistency few minutes after mixing. At this point the resin can be manipulated to perfectly fill the defect <sup>3</sup>

#### Mechanical strength:

PMMA has excellent mechanical properties (elasticity, resistance, lightness) in comparison with other materials

	Compression strength	Bending strength	Bending modulus
Mendec Cranio	101±5	70 ± 5	3000 ± 150
ISO limit	> 70 MPa	> 50 MPa	> 1800 MPa

#### **Reduced polymerization temperature:**

each monomer gram (the liquid component) develops 130 Kcal of heat. Thanks to its special powder, **MENDEC Cranio** needs 30% less liquid with respect to normal acrylic resins, thus reducing the total heat produced during polimerization

#### **Reduced toxicity:**

the reduced amount of liquid (MMA) gives a resin with a reduced toxicity

#### **Biocompatibility:**

PMMA has been used in clinical practice for more than 70 years, demonstrating its excellent biocompatibility.<sup>1-2</sup>

#### PLASTICITY

Reaches an excellent moulding state shortly after mixing.

#### PRECISION

Remains malleable for a long time, allowing for a detailed reconstruction of the bone defect.

#### SAFETY

The consistency of the mass allows it to maintain the shape given before the ending of polymerisation, which can therefore take place on an external support, away from the meninges.<sup>4-5</sup>

#### Working times at 23°C



Times indicated in the table were obtained under controlled temperature of 23°C +/- 1°C.

#### Working times at 20°C



Times indicated in the table were obtained under controlled temperature of 20°C +/- 1°C.

#### **Ordering information**

Ref	Description	Details
1220/D	MENDEC Cranio radiopaque	20 g
CPSP-02	Bowl and spatula	



#### Bibliography

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- 4 Hasegawa Y, Tanaka T, Kanki T et al. Advantages of the new type of high viscosity polymer plastic for cranioplasty in Bone cements and cemented fixation of implants Ed. Pipino F, Nov. 2001
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