SMTL Dressings Datacard

Product Name:	**DELTA-CAST Black Label**
Classification Name:	**Bandage Orthopaedic Resin**
Manufacturer:	**Johnson & Johnson Medical Ltd**

Description

Delta-Cast bandage consists of a lightweight knitted cotton fabric, impregnated with a polyurethane resin. A Delta-Cast splint consists of four layers of a woven bleached cotton fabric, stitched together and impregnated with the same resin. When Delta-Cast is exposed to moisture vapour or immersed in water, the resin undergoes a polymerisation reaction, which causes the bandage to harden and become rigid. The setting time depends upon the temperature of the dip water, but will typically be about 5-7 minutes. Once set, the cast can be bivalved or windowed, and will be weight-bearing after 30 minutes. A cast made from Delta-Cast is lightweight, 98% transparent to X-rays, and has a water vapour permeability similar to that of plaster of Paris.

Indications

Although Delta-Cast may be used in many situations where rigid immobilisation is required, it does not have the same strength and load-bearing capabilities as the fibreglass-based bandages. For this reason, it is often reserved for use on paediatric and geriatric patients, and for the formation of upper limb casts where low weight is of primary importance.

Contra-Indications

In common with all polyurethane casting materials, Delta-Cast should be applied with caution on fresh fractures[*** linked fr-00 ***] where swelling of the injured limb may be anticipated which could make rapid removal of the cast necessary.

Method of use

Delta-Cast should be applied over a layer of stockinette and orthopaedic padding. Although any suitable product may be used, some workers prefer to use non-absorbent materials based upon synthetic fibres such as polyester, rather than the viscose or cotton-based materials usually used in conjunction with plaster of Paris as these will retain moisture should the final cast become wet.

Prior to application, the bandage should be immersed in water at 20 °C, and firmly squeezed four or five times under the surface to ensure complete penetration of water into the body of the bandage. After removal from the dip water, the bandage should not be squeezed further. The bandage should be applied in the form of a spiral, each turn overlapping the previous one by about one-third to one-half of the width. In non-weight-bearing situations 6-8 layers of bandage are usually sufficient , but 8-10 layers may be required for a weight-bearing cast. The cast may be moulded to its final shape during the last 30 seconds of its setting cycle, after which time it may be windowed or trimmed with shears or a standard cast saw. A cast made from Delta-Cast may be repaired or reinforced by the application of additional tape, and may usually be removed with plaster shears. A plaster saw is not generally

required.

Warnings

Prior to setting, the polyurethane resin will adhere firmly to unprotected skin and clothing. Operators should always wear gloves when handling Delta-Cast, and care should be taken to ensure that the uncured tape does not come into contact with the patient's skin. Any uncured resin may be removed from the skin by gently swabbing with acetone or ethanol. Once set, Delta-Cast is not adversely affected by moisture, but immersion of the cast in water is not recommended, as it may prove very difficult to dry the underlying padding.

Presentation

Delta-Cast is available in the form of a roll, wrapped around a hollow core, and heat-sealed in a poly/foil/poly laminate pouch.

Storage

Two years from the date of manufacture. Unopened rolls of casting tape should be stored in a cool dry atmosphere below 25 °C.

Sizes

5.0 cm × 3 m 10.0 cm × 3 m

7.5 cm × 3 m 15.0 cm × 3 m

10 cm × 75 cm splints

15 cm × 75 cm splints

Revision Details

Revision Author	Dr S. Thomas
Revision No	1.3
Revision date	1997/12/16

Please inform SMTL of any inaccuracies or changes required in this datacard.

Disclaimer

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