T-TAPE COMPANY

INTRODUCTION

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Introduction:

In the realm of material science and manufacturing, innovation is the driving force behind progress and growth. The T Tape Company (located in Putte, the Netherlands), a prominent manufacturer of the low temperature thermoplastic materials, stands as an example of how technological advancements can revolutionize the medical industry. Through its unwavering commitment to research, development, and production, T Tape Company has paved the way for the adoption of low temperature thermoplastics in various healthcare sectors, redefining the possibilities of material applications and transforming medical care worldwide

T Tape Company BV:

T-TAPE COMPANY

- T Tape is a privately-owned company established in 1987.

- It manufactures high-end products developed in close cooperation with medical professionals in the fields of hand therapy, rehabilitation, orthopedics, and radiotherapy.
- The management team has many years of technical and clinical background.
- The founder has a proven track record in the development of innovative thermoplastic materials for more than 40 years.
- The company follows a lean business model, focusing on product development, marketing, sales, quality assurance & regulatory compliance, and logistics.
- Sales are conducted through international distributors, both direct (in 35+ countries) and indirect (in 60+ countries).

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The Genesis of LTTPS

- Low temperature thermoplastic materials (LTTP) are a class of polymers that exhibit unique properties when heated to relatively low temperatures, allowing them to be molded, shaped, and reshaped multiple times without undergoing degradation. The origins of these materials can be traced back to the mid-20th century when researchers began to explore the potential of polymers and their behavior under varying temperature conditions.

- T Tape Company emerged as a pioneering force in this field, leveraging extensive research and development efforts to perfect the formulation and production of low temperature thermoplastics. By refining the polymer composition and optimizing manufacturing processes, the company successfully harnessed the potential of these materials, setting the stage for a revolutionary leap in material science.

MODERN LOW-TEMPERATURE THERMOPLASTIC MATERIALS

T-TAPE COMPANY

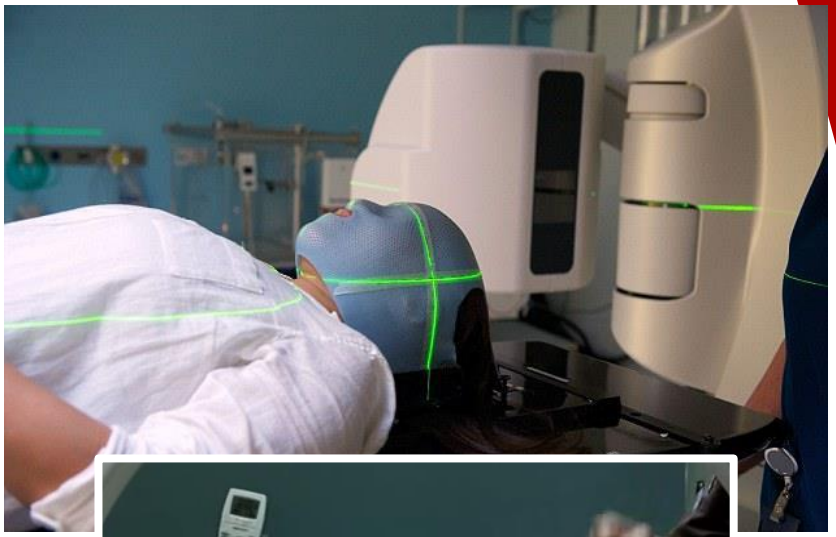
- Turbocast®
- Tubocast Ortho (NS)
- IMMO+ (NS)
- Beachcast
- B-Cast

TWO BUSINESS UNITS

T-TAPE COMPANY

RADIOTHERAPY & NUCLEAR MEDICINE

ORTHOPAEDICS



THERMOPLASTICS FOR IMMOBILIZATION IN RADIOTHERAPY:

Required to establish and maintain the patient in a fixed, well-defined position over the course of multiple radiation treatments, or to prevent the patient from moving during a single treatment session

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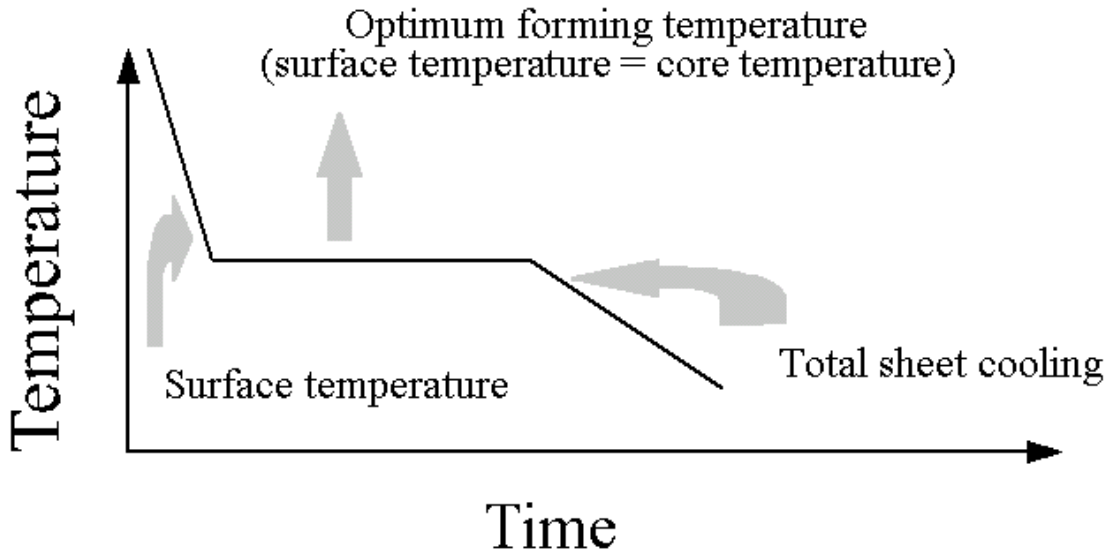
THERMOPLASTICS FOR IMMOBILIZATION IN ORTHOPAEDICS:

fracture immobilization
static and dynamic splinting
splinting for burned patients
post-operative splinting
protective devices

LOW TEMPERATURE **THERMOPLASTICS**



GENERAL CHARACTERISTICS

- Does not emit toxic or noxious gases or vapors during application
- X-ray transparent
- After application, the material transforms into a hard splint that does not require reinforcement
- Due to its exceptional properties, it follows the exact contours of the treated surface
- The finished device is lightweight
- Programmed plastic memory allows the product to return to its original shape for further adjustments

TURBOCAST®

Advantages and characteristics

ADVANTAGES OF THE **FOAM** COATING

- Turbocast® does not adhere to itself in hot water, allowing sizable surfaces to be placed in a small hot-water container.

- It only sticks when firmly pressed together, preventing accidental bonding.

- The foam coating creates a thin layer between the patient's skin and the thermoplastic, reducing the risk of skin maceration.

MOLDING **CHARACTERISTICS**

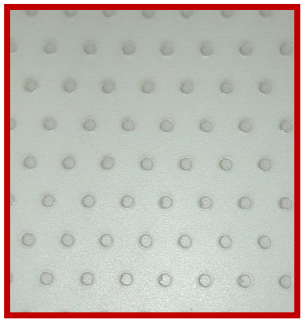
Transparency	Memory	Drape	Stretch	Ease of finishing	Bounding
Moderate	100%	Maximum	Moderate	Maximum	Moderate, no possibility of accidental bounding

TURBOCAST® IS **MANUFACTURED** IN THE FOLLOWING **COLORS**

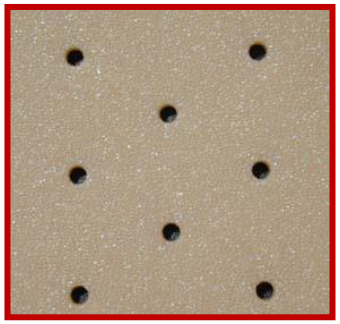
- Peach (Skin)
- Yellow
- Green
- Blue
- Fuchsia-red

TURBOCAST® IS **AVAILABLE** IN THE FOLLOWING **PERFORATIONS**

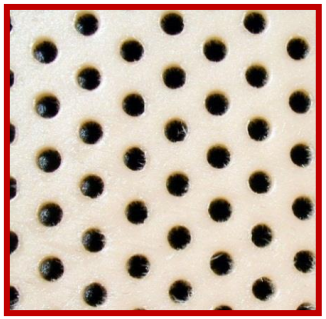
MICRO
0,8 -1,6 – 2,0 mm



OPTI
2,0 – 2,5 – 3,0 mm



MINI
2,0 – 2,5 – 3,0 – 4,0 mm



MULTI
2,0 – 2,5 – 3,0 mm

TURBOCAST® ORTHO (NS)

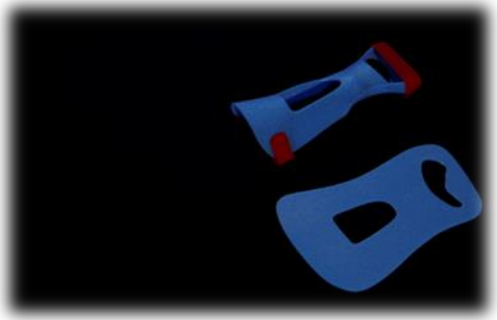
Advantages and characteristics

TURBOCAST® ORTHO

- Transparent-when-heated material.
- Easy auto-bounding (no solvents needed).
- Lower processing temperature (65°C - 159°F).

MOLDING **CHARACTERISTICS**

Transparency	Memory	Drape	Stretch	Ease of finishing	Bounding
Maximum	100%	Moderate	Maximum	Maximum	Maximum



IMMO+ (NS)

Advantages and characteristics

Special advantages

- Extra rigidity
- Extra strength
- Non sticky surface

Colours

IMMO+ (NS) is manufactured in WHITE, RED, ROYAL BLUE and BLACK

MOLDING **CHARACTERISTICS**

Transparency	Memory	Drape	Stretch	Bounding
Maximum	100%	Maximum	Maximum	Minimum

PROCESSING METHODS

- Water (from 65°C)
- Heat gun
- Heating plate / table

PROCESSING METHODS

The material can be processed after 2-minutes heating at 65°C or 1-minute heating at 75°C or until a dark “glazy” discoloration has appeared.

INSTRUCTIONS OF **USE**

After heating in water at 65°C lift the material out and place it immediately on a dry towel. Fold half of the towel over the whole plate to dab excess moisture.

INSTRUCTIONS OF **USE**

The material can now be placed directly on bare skin. By this time, the temperature will have dropped to approximately 40°C/105°F, which is generally considered comfortable.

INSTRUCTIONS OF **USE**

If working at a higher temperature is required in order to get more modelling time, it is advisable to protect the skin with stockinet or another kind of tubular bandage.

USING A **WATER BATH** (TURBOCAST® ORTHO)

- To soften Turbocast® Ortho, immerse the material in a water bath at a temperature of 60°C - 65°C (140°F - 149°F) for 60-90 seconds or until it reaches the desired softness.

- Once ready, remove the material from the water and place it on a flat surface, preferably a wooden board, for approximately 10 seconds. The temperature will quickly decrease to approximately 35°C (95°F).

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THANK YOU!

You can contact me at turbocast@planet.nl