

Information for Clinical Choice

Casting Tapes

Introduction

Information for Clinical Choice (ICC) has been developed to assist Clinicians in the decision-making process when assessing the suitability of a product by providing a clear illustration and description of the features of a range of similar products supplied through NHS Supply Chain. The criteria provided, in the form of a Product Matrix and Support Document, is the result of a product review, conducted by Clinical Specialists with support from clinical stakeholders from across the NHS as part of our assurance process.

The aim, alongside delivering savings back into NHS frontline services, is to ensure that clinical choice remains at the forefront of any product switching decision.

Immobilisation and Associated Consumables - Casting Tapes

Extensive engagement with the British Orthopaedic Association (BOA) casting trainers has taken place to improve the framework offering and ensure the information provided aligns with current evidence-based guidelines. As the framework has renewed a refresh of the previous ICC has been completed with inclusion of Thermoplastic Casting Tape. **All available casting tape products have been physically evaluated by clinicians.**

Casting Tapes are a type of medical tape that when combined with heat/water set to support/immobilise the limb and protect the area, to encourage healing of injuries such as fractures, tendon ruptures, or support the realignment of deformities e.g., talipes or following surgery. Casting may be used by skilled technicians as an alternative to “Off the Shelf or Bespoke Orthotic” products, producing removable splints and braces.

Most casting tapes are made from a resin-impregnated fibrous cloth that requires activation in warm water (typically 25 degrees) although some allow humidity in the air to naturally cure. Activation or curing allows the product to be applied in a conformable state and the activation or curing changes the product to a finished cast.

Casting Tapes provide the same outcome as Plaster of Paris but are considered lighter, stronger, and more adaptable.

Historically products were described as Fiberglass or Non-Fiberglass and then by flexibility (Rigid, Semi-Rigid, Flexible), however this did not align to the product characteristics. In agreement with the BOA, descriptions were updated to align to the product characteristics.

1. Rigid	Only fibreglass material casting tapes can be considered as rigid. This type of casting tape is the most suitable for weightbearing applications. The technique of focused rigidity casting requires a rigid product to be used in conjunction with either flexible or semi-rigid products.
2. Flexible	When set, these tapes allow a higher degree of flexibility than the other casting tapes which can help with reducing muscle atrophy which is experienced during a period of immobilisation. All flexible casting tapes must be able to be unwound by hand once set. Tapes can be made from either Fiberglass or Non-Fiberglass materials
3. Semi-Rigid	Semi-Rigid is strong and lightweight, they have a small degree of flexibility once cured. Can be used independently from other casting tapes.
	Some suppliers have two ranges in this area; to differentiate these ranges we have included the term “ with increased flexibility ” in the product description. Semi-Rigid products require the use of cast removal products and cannot be unwound by hand.
4. Thermoplastic	Casting Tape impregnated with a Thermoplastic Resin which enables re-heating and adaption without breakdown or waste. A non-toxic material which does not require gloves or additional ventilation for the curing process

Common Application Approach

1. Patient's limb is prepared, cleaned, and dried.
2. Casting Stockinette is applied to the limb.
 - a. Must be non-elasticated and a ribbed material
 - b. Can be either Natural or Synthetic material, standard or towelling thickness.
3. Undercast Padding which is self-adherent is applied to the limb
 - a. Can be either Natural or Synthetic material which comes either Sterile, Non-Sterile, with or without waterproof properties.
 - b. The cast padding is there to provide a cushion between the limb and the cast tape. It also helps to keep the limb comfortable during wear and reduces heat exposure from the Tape curing process.
4. Casting Tape is applied using appropriate technique for the outcome desired. The curing can take 20-30min to harden which allows weight bearing depending on variety of tape used.

N.B. There are variety of Casting Accessories to enhance functionality of the product, this includes, edging tape, hook and loop fixings, hinges, and waterproof covers.

Thermoplastic Tape Variance

Thermoplastic polymers become soft and mouldable when heated and solidify while cooling down. This process can be repeated any number of times without material breakdown or waste

Steps 1-3 above remain the same

Step 4. Requires a water bath or Oven/Heat-gun at 70°C to 80°C depending on variant. Curing takes approximately 30 minutes.

Product Matrix





The data in the accompanying tables are accurate at time of publication. There is an excel version of these tables which include EX VAT pricing for those customers who are on the National Price. Please see the Downloads section on the [Orthotics, Podiatry and Immobilisation contract page](#)

1. Rigid Casting Tapes

Supplier Brand	3M				BENECARE MEDICAL				ESSITY UK				Praxis			
	Scotchcast Plus				BeneCast Fibreglass				Delta-Lite Plus				Provectus Fiberglass			
Picture																
Material Type	Fibreglass				Fibreglass				Fibreglass				Fibreglass			
UOI Unit	10				10				10				10			
UOI #	Pack				Pack				Pack				Pack			
Country	Poland				China				Mexico				South Korea			
Product Information	Size	Supply Route	# Colours	Colours	Size	Supply Route	# Colours	Colours	Size	Supply Route	# Colours	Colours	Size	Supply Route	# Colours	Colours
	2.5cm x 1.8m	Stocked	-	-	2.5cm x 1.8m	Stocked	-	-	2.5cm x 1.8m	Stocked	-	-	2.5cm x 1.8m	Stocked	-	-
		eDirect	1	W		eDirect	-	-		eDirect	1	W		eDirect	-	-
	5cm x 3.6m	Stocked	4	W, BL, PU, R	5cm x 3.6m	Stocked	1	W	5cm x 3.6m	Stocked	8	W, B, BL, DBL, G, P, PU, R	5cm x 3.6m	Stocked	-	-
		eDirect	5	B, G, LBL, P, Y		eDirect	5	B, BL, G, PU, R		eDirect	2	O, Y		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	7.5cm x 3.6m	Stocked	5	W, BL, PU, R, P	7.5cm x 3.6m	Stocked	3	W, BL, PU	7.5cm x 3.6m	Stocked	8	W, B, BL, DBL, G, P, PU, R	7.5cm x 3.6m	Stocked	-	-
		eDirect	4	B, G, LBL, Y		eDirect	2	B, R		eDirect	2	O, Y		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	10cm x 3.6m	Stocked	2	W, B	10cm x 3.6m	Stocked	1	W	10cm x 3.6m	Stocked	8	W, B, BL, DBL, G, P, PU, R	10cm x 3.6m	Stocked	-	-
		eDirect	5	B, G, P, PU, R		eDirect	3	B, PU, R		eDirect	2	O, Y		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	12.5cm x 3.6m	Stocked	-	-	12.5cm x 3.6m	Stocked	1	W	12.5cm x 3.6m	Stocked	1	W	12.5cm x 3.6m	Stocked	-	-
		eDirect	1	W		eDirect	-	-		eDirect	-	-		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	15cm x 3.6m	Stocked	-	-	15cm x 3.6m	Stocked	-	-	15cm x 3.6m	Stocked	-	-	15cm x 3.6m	Stocked	-	-
		eDirect	-	-		eDirect	-	-		eDirect	-	-		eDirect	-	-


Colours – White (W), Black (B), Blue (BL), Green (G), Grey (Gy), Orange (O), Pink (P), Purple (Pu), Red (R), Yellow (Y) – Light Blue (LBL) Dark Blue (DBL)

2. Flexible Casting Tape

Supplier	KCI Medical				BENECARE MEDICAL				Essity UK				Praxis			
Brand	3M Soft Cast				BeneCast Flex				Delta-Cast Soft				Provectus Soft Cast			
Picture																
Material Type	Fibreglass				Non-Fibreglass				Non-Fibreglass				Non-Fibreglass			
UOI Unit	10				10				10				10			
UOI #	Pack				Pack				Pack				Pack			
Country	Germany				China				Mexico				China			
Product Information	Size	Supply Route	# Colours	Colours	Size	Supply Route	# Colours	Colours	Size	Supply Route	# Colours	Colours	Size	Supply Route	# Colours	Colours
	2.5cm x 1.8m	Stocked	1	W	2.5cm x 1.8m	Stocked	-	-	2.5cm x 1.8m	Stocked	-	-	2.5cm x 1.8m	Stocked	-	-
		eDirect	3	BL, PU, R		eDirect	-	-		eDirect	1	W		eDirect	-	-
	5cm x 3.6m	Stocked	5	W, BL, PU, R, P	5cm x 3.6m	Stocked	4	BL, P, PU, W	5cm x 3.6m	Stocked	2	B, R	5cm x 3.6m	Stocked	-	-
		eDirect	1	B		eDirect	4	B, G, R, Y		eDirect	4	B, P, Heart or Paw Print		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	7.5cm x 3.6m	Stocked	4	W, BL, PU, R	7.5cm x 3.6m	Stocked	4	BL, P, PU, W	7.5cm x 3.6m	Stocked	3	B, R, W	7.5cm x 3.6m	Stocked	-	-
		eDirect	2	B, P		eDirect	5	B, G, O, R, Y		eDirect	4	B, P, Heart or Paw Print		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	10cm x 3.6m	Stocked	1	W	10cm x 3.6m	Stocked	-	-	10cm x 3.6m	Stocked	-	-	10cm x 3.6m	Stocked	-	-
		eDirect	3	PU, R, BL		eDirect	5	B, P, PU, R, W		eDirect	5	B, BL, P, R, W		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	12.5cm x 3.6m	Stocked	-	-	12.5cm x 3.6m	Stocked	-	-	12.5cm x 3.6m	Stocked	-	-	12.5cm x 3.6m	Stocked	-	-
		eDirect	1	W		eDirect	-	-		eDirect	1	W		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	15cm x 3.6m	Stocked	-	-	15cm x 3.6m	Stocked	-	-	15cm x 3.6m	Stocked	-	-	15cm x 3.6m	Stocked	-	-
		eDirect	-	-		eDirect	-	-		eDirect	-	-		eDirect	-	-



Colours – White (W), Black (B), Blue (BL), Green (G), Grey (GY), Orange (O), Pink (P), Purple (PU), Red (R), Yellow (Y) – Light Blue (LBL) Dark Blue (DBL)

3a. Semi Rigid (Standard)

Supplier	BENECARE MEDICAL				Essity UK				Praxis			
Brand	BeneCast Poly				Delta-Cast Elite				Provectus DTY			
Picture												
Material Type	Non-Fibreglass				Non-Fibreglass				Non-Fibreglass			
UOI Unit	10				10				10			
UOI #	Pack				Pack				Pack			
Country	China				Mexico				China			
Product Information	Size	Supply Route	# Colours	Colours	Size	Supply Route	# Colours	Colours	Size	Supply Route	# Colours	Colours
	2.5cm x 1.8m	Stocked	-	-	2.5cm x 1.8m	Stocked	-	-	2.5cm x 1.8m	Stocked	-	-
		eDirect	-	-		eDirect	-	-		eDirect	-	-
	5cm x 3.6m	Stocked			5cm x 3.6m	Stocked	7	W, B, DBL, G, P, PU, R	5cm x 3.6m	Stocked	-	-
		eDirect				eDirect	2 (7)	LBL, O (Prints)		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	7.5cm x 3.6m	Stocked			7.5cm x 3.6m	Stocked	8	W, B, DBL, G, LBL, P, PR, R	7.5cm x 3.6m	Stocked	-	-
		eDirect				eDirect	1 (6)	O, (Prints)		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	10cm x 3.6m	Stocked			10cm x 3.6m	Stocked	7	W, B, LBL, DBL, PU, R	10cm x 3.6m	Stocked	-	-
		eDirect				eDirect	2	G, O		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	12.5cm x 3.6m	Stocked			12.5cm x 3.6m	Stocked	1	W	12.5cm x 3.6m	Stocked	-	-
		eDirect	-	-		eDirect	-	-		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	15cm x 3.6m	Stocked	-	-	15cm x 3.6m	Stocked	-	-	15cm x 3.6m	Stocked	-	-
		eDirect	-	-		eDirect	-	-		eDirect	-	-




Colours – White (W), Black (B), Blue (BL), Green (G), Grey (Gy), Orange (O), Pink (P), Purple (Pu), Red (R), Yellow (Y) – Light Blue (LBL) Dark Blue (DBL)

3b. Semi Rigid – Increased Flexibility

Supplier	BENECARE MEDICAL				ESSITY UK				Praxis			
Brand	BeneCast Advanced Conformable				Delta-Cast Conformable				Provectus SS			
Picture												
Material Type UOI Unit UOI # Country	Non-Fibreglass				Non-Fibreglass				Non-Fibreglass			
	10				10				10			
	Pack				Pack				Pack			
	South Korea				Mexico				China			
Product Information	Size	Supply Route	# Colours	Colours	Size	Supply Route	# Colours	Colours	Size	Supply Route	# Colours	Colours
	2.5cm x 1.8m	Stocked	-	-	2.5cm x 1.8m	Stocked	1	W	2.5cm x 1.8m	Stocked	-	-
		eDirect	-	-		eDirect	-	-		eDirect	-	-
	5cm x 3.6m	Stocked	6	B, BL, P, PU, R, W	5cm x 3.6m	Stocked	8	W, B, DBL, G, Neon P, PU, R, Neon Y	5cm x 3.6m	Stocked	-	-
		eDirect	1	G		eDirect	2	Mixed Colours, Neon O		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	7.5cm x 3.6m	Stocked	7	B, BL, G, P, PU, R, W	7.5cm x 3.6m	Stocked	8	W, B, DBL, G, Neon P, PR, R, Neon Y	7.5cm x 3.6m	Stocked	-	-
		eDirect	-	-		eDirect	2	Mixed Colours, Neon O		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	10cm x 3.6m	Stocked	6	B, BL, P, PU, R, W	10cm x 3.6m	Stocked	8	W, B, BL, G, P, PU, R, Neon Y	10cm x 3.6m	Stocked	-	-
		eDirect	1	G		eDirect	2	Mixed Colours, Neon O		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	12.5cm x 3.6m	Stocked	1	W	12.5cm x 3.6m	Stocked	1	W	12.5cm x 3.6m	Stocked	-	-
		eDirect	-	-		eDirect	-	-		eDirect	10	B, BL, G, GY, O, P, PU, R, W, Y
	15cm x 3.6m	Stocked	-	-	15cm x 3.6m	Stocked	-	-	15cm x 3.6m	Stocked	-	-
		eDirect	-	-		eDirect	-	-		eDirect	-	-

Colours – White (W), Black (B), Blue (BL), Green (G), Grey (Gy), Orange (O), Pink (P), Purple (Pu), Red (R), Yellow (Y) – Light Blue (LBL) Dark Blue (DBL)

4. Thermoplastic

Supplier	Medfac UK Ltd				Medfac UK Ltd				Medfac UK Ltd			
Brand	Allard X-Lite - Classic				Allard X-Lite - Premium				Allard X-Lite - Plus			
Picture												
Material Type UOI Unit UOI # Country	Non-Fibreglass				Non-Fibreglass				Non-Fibreglass			
	10				10				10			
	Pack				Pack				Pack			
	South Korea				Mexico				China			
	Size	Supply Route	# Colours	Colours	Size	Supply Route	# Colours	Colours	Size	Supply Route	# Colours	Colours
Product Information	2.5cm x 1.8m	Stocked	-	-	2.5cm x 1.8m	Stocked	-	-	2.5cm x 1.8m	Stocked	-	-
		eDirect	-	-		eDirect	-	-		eDirect	5	B, BL, Hot P, R, W
	5cm x 1.8m	Stocked	-	-	5cm x 1.8m	Stocked	-	-	5cm x 1.8m	Stocked	-	-
		eDirect	1	W		eDirect	1	W		eDirect	5	B, BL, Hot P, R, W
	7.5cm x 1.8m	Stocked	-	-	7.5cm x 1.8m	Stocked	-	-	7.5cm x 1.8m	Stocked	-	-
		eDirect	3	Anthracite, Royal BL, W		eDirect	1	W		eDirect	5	B, BL, Hot P, R, W
	10cm x 1.8m	Stocked	-	-	10cm x 1.8m	Stocked	-	1	10cm x 1.8m	Stocked	-	-
		eDirect	3	Anthracite, Royal BL, W		eDirect	1	W		eDirect	5	B, BL, Hot P, R, W
	12.5cm x 1.8m	Stocked			12.5cm x 1.8m	Stocked	-	-	12.5cm x 1.8m	Stocked	-	-
		eDirect	1	W		eDirect	1	W		eDirect	5	B, BL, Hot P, R, W
	15cm x 1.8m	Stocked	-	-	15cm x 1.8m	Stocked	-	-	15cm x 1.8m	Stocked	-	-
		eDirect	8	Anthracite, Royal BL, W		eDirect	1	W		eDirect	5	B, BL, Hot P, R, W
	Additional products available e.g. edging tapes long rolls in a dispenser and sheets of thermoplastic which can be used to create a wide variety of casts and splints, please review the online catalogue or supplier information for further guidance on shapes and sizes.											

Colours – White (W), Black (B), Blue (BL), Green (G), Grey (Gy), Orange (O), Pink (P), Purple (Pu), Red (R), Yellow (Y) – Light Blue (LBL) Dark Blue (DBL)

National Guidance / Bibliography

These papers were reviewed as part of this ICC development.

<https://www.nice.org.uk/guidance/ng19/resources/diabetic-foot-problems-prevention-and-management-pdf-1837279828933>

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- Kowalski et al, 2002 - **Evaluation of fiberglass versus plaster of Paris for immobilization of fractures of the arm and leg**. Military medicine; Aug 2002; vol. 167 (no. 8); p. 657-661
- Milne N, Miao M, Beattie E. **The effects of serial casting on lower limb function for children with Cerebral Palsy: a systematic review with meta-analysis**. BMC Pediatr. 2020 Jul 2;20(1):324. doi: 10.1186/s12887-020-02122-9. PMID: 32615954; PMCID: PMC7330971.

Opportunities

National Impact Analysis information is available via your Integrated Care System Managers (ICSM), for further information please speak with your liaison.

There are several potential switching opportunities available which will be included in the National Impact Analysis.

If you have any questions, would like further information, or have feedback to share, please contact:

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