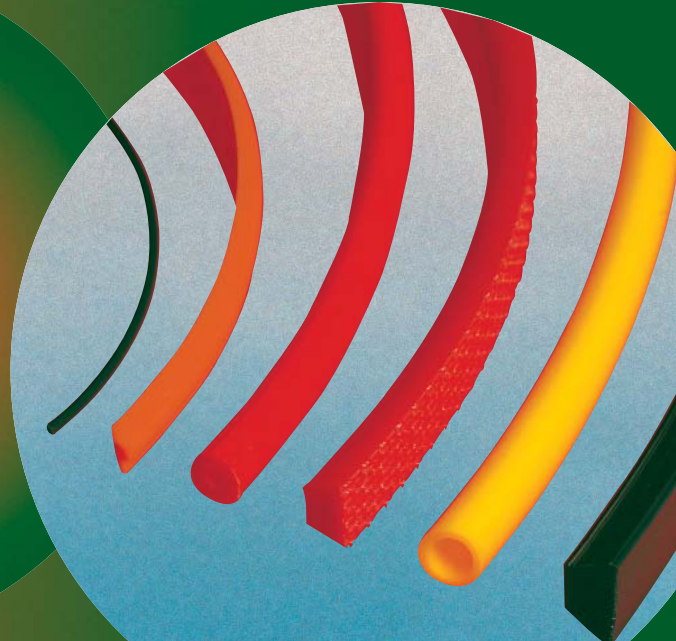




Polyurethane Products Ltd

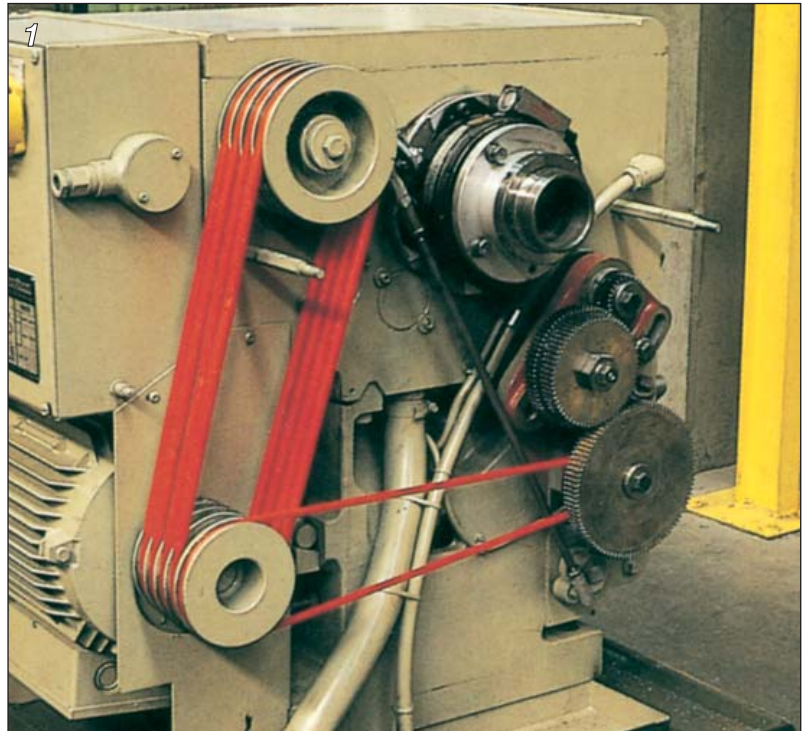
**REDTHANE®/GREENTHANE®**  
**BELTING & POLYURETHANE EXTRUSIONS**



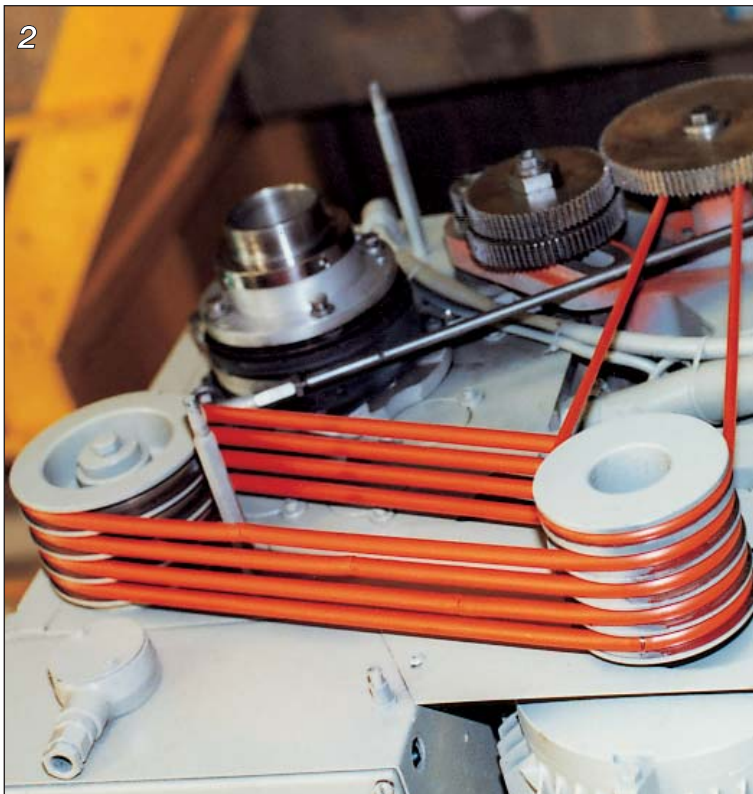
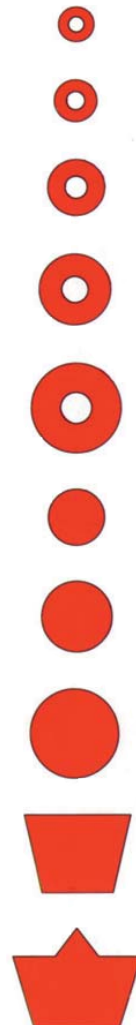
# REDTHANE BELTING

The original European red polyurethane belting to replace traditional belts, minimising downtime through rapid replacement.

- Replaces round vee and link belts (A, M and B sections).
- Can be supplied continuous or cut-to-length and can be joined by welding, or by using the patent fastener.
- Eliminates motor/pulley adjustment.
- Enables user to fix belts in situ thereby reducing costly down time.
- Results in less waste, as differing lengths can be joined together.
- Allows for minimal stockholding – one reel for all 'A' section belts, one reel for all 'B' section belts, etc.



## STANDARD SECTIONS



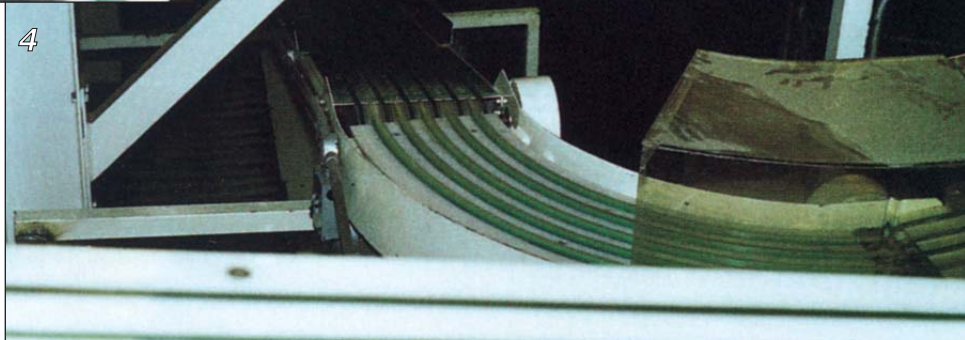
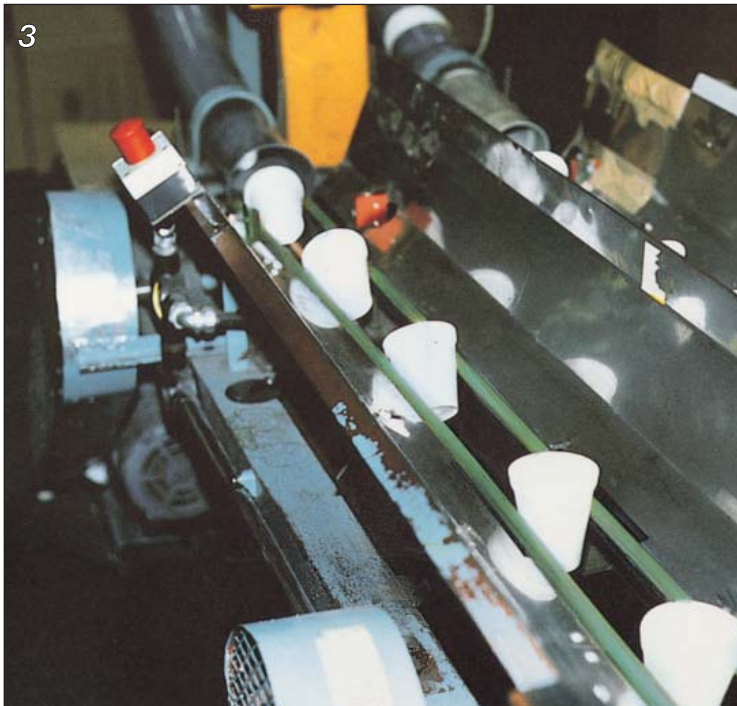
1. Redthane in engineering.
2. Redthane in woodworking.
3. Redthane being extruded.

# GREENTHANE BELTING

Greenthane is a high quality polyurethane based belting product, used in conveying and power transmission applications, where higher loads apply.

## FEATURES OF GREENTHANE BELTING

- High quality raw materials
- High elasticity and flexibility
- Eliminates need for special pulleys
- Requires minimal or no maintenance
- Outstanding resistance to many chemicals and oils
- Abrasion resistant
- Greenthane Belting can be supplied in any of the following:
  - Continuous
  - Cut-to-length
  - Welded endless
- Allows Serpentine Drives



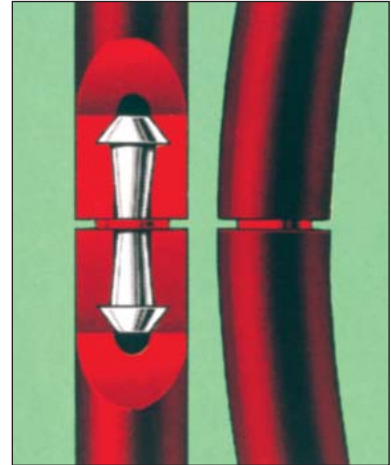
1. & 2. Greenthane in advertising.  
3. Greenthane in packaging.  
4. Greenthane in food processing.

# JOINING

## USING THE ORIGINAL PATENTED INTERNAL FASTENER

- Check length of belting, reduce length by 7%, cut to length
- Using long nose pliers, insert fastener into the tube, taking care not to damage the flange.
- Insert the fastener into the tube at an angle and “walk” in until completely home
- Insert the fastener into the other end of the tube using the same principle to form an endless belt
- This operation may be carried out on the machine if necessary
- Stretch on to pulleys

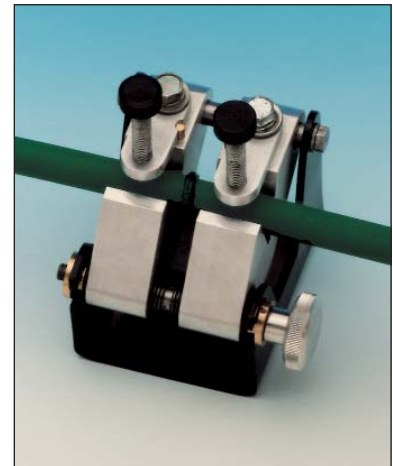
*Patent connector for use with tubular Redthane.*



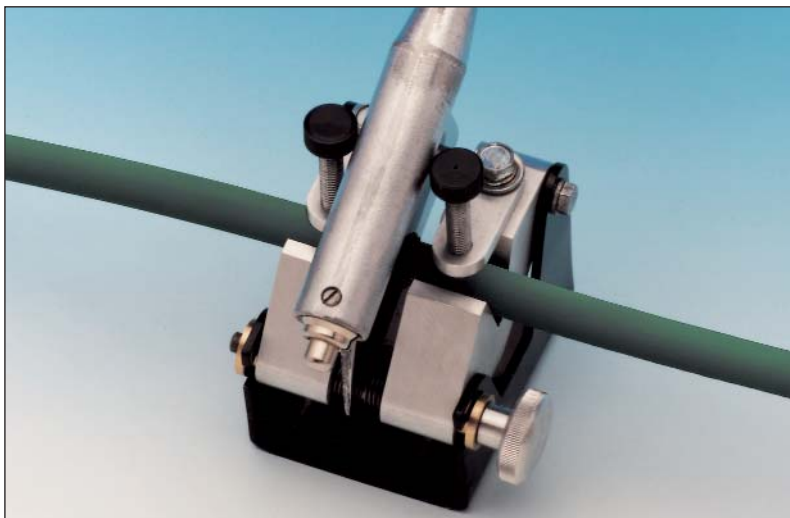
## WELDING PROCEDURE



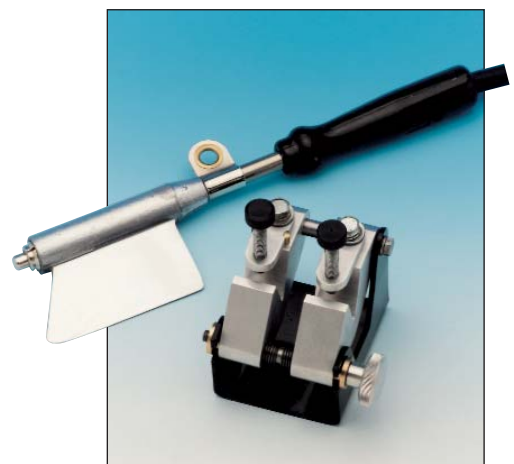
1. Cut appropriate belt to required length and insert into jig, leaving gap for welding blade.



3. Join melted ends together.



2. Melt the ends using the welding tool.



4. Allow to cool, remove from jig and remove flash.

# TECHNICAL DATA

**THE TABLES BELOW WILL ALLOW YOU TO CALCULATE THE CORRECT BELT SIZE TO USE FOR YOUR APPLICATION**

MINIMUM PULLEY DIAMETERS IN MM		
SECTION	REDTHANE	GREENTHANE
3mm Solid	25	30
4mm Solid	35	50
5mm Solid	40	50
5mm Tubular	50	N/A
6mm Solid	50	60
6mm Tubular	60	N/A
8mm Solid	65	80
8mm Tubular	80	N/A
10mm Solid	80	100
10mm Tubular	100	N/A
10mm Vee	65	N/A
12mm Solid	85	120
12mm Tubular	120	N/A
13mm Vee	85	N/A
17mm Vee	150	N/A
20mm Vee	170	N/A

## BELT SELECTION

Determine arc of contact factor from the following table

D = Large Pulley Dia. (mm)    d = Small Pulley Dia. (mm)    X = Distance between Centres (mm)

D - d X	20	30	40	50	60	80	100	120	150	200
100	1.05	1.07	1.10	1.14	1.17	1.25	1.35	1.46	-	-
120	1.04	1.06	1.09	1.11	1.14	1.18	1.28	1.35	-	-
140	1.03	1.05	1.08	1.09	1.12	1.16	1.20	1.28	1.35	-
200	1.02	1.04	1.07	1.08	1.09	1.12	1.14	1.18	1.28	1.40
250	1.01	1.03	1.05	1.07	1.08	1.09	1.10	1.13	1.17	1.25
300	1.00	1.02	1.05	1.06	1.06	1.07	1.08	1.10	1.14	1.18
400	-	-	1.03	1.05	1.04	1.06	1.07	1.08	1.10	1.15
500	-	-	-	-	1.03	1.04	1.05	1.06	1.08	1.10
600	-	-	-	-	-	-	1.04	1.05	1.07	1.08
800	-	-	-	-	-	-	-	-	1.04	1.06

Multiply power to be transmitted by arc of contact factor to obtain corrected power.  
Calculate belt speed (in metres per second) and select belt option from following table.

POWER TRANSMITTED KW										
D - d Speed	REDTHANE at 7% TENSION (TUBULAR)					GREENTHANE at 8% TENSION (SOLID)				
	5 mm	6 mm	8 mm	10 mm	12 mm	5 mm	6 mm	8 mm	10 mm	12 mm
2.5	0.06	0.09	0.15	0.20	0.35	0.07	0.10	0.17	0.26	0.41
5	0.12	0.17	0.34	0.45	0.70	0.14	0.20	0.38	0.60	0.83
10	0.22	0.34	0.58	0.85	1.30	0.26	0.38	0.62	1.05	1.50
15	0.33	0.50	0.91	1.20	1.90	0.38	0.56	1.05	1.50	2.25
20	0.39	0.58	1.00	1.50	2.20	0.41	0.60	1.07	1.58	2.40
STATIC BEARING LOAD KG										
	7	10	20	27	40	8	14	23	30	50

The above values are theoretical and for guidance only.

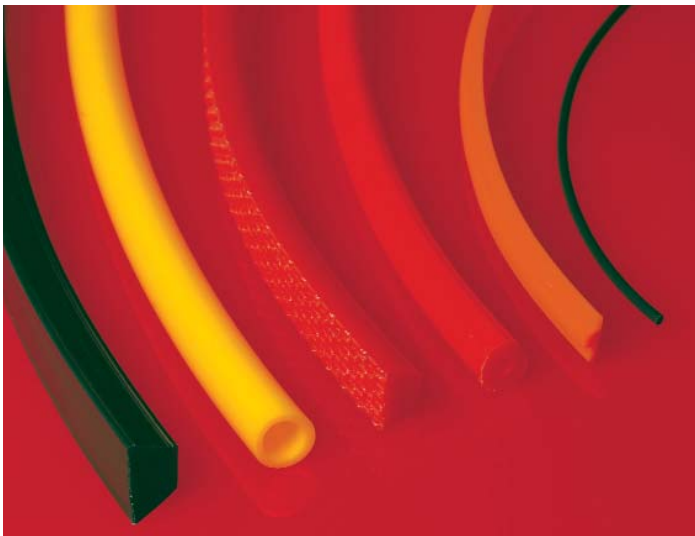
Users should satisfy themselves as to the suitability of any particular belt for their applications.

**SHOULD YOU REQUIRE FURTHER ASSISTANCE,  
PLEASE CONTACT OUR TECHNICAL SERVICES DEPARTMENT**

# BESPOKE EXTRUSIONS

Subject to minimum runs, PPL will extrude customer designed profiles, or replicate submitted samples. We design and trial dies in house and offer a wide range of colours and hardnesses.

- 65°A to 97°A hardness range
- Cut to length facilities
- Coiling
- Printing (logo etc.)
- Solid sections
- Hollow sections
- F.D.A. grades available



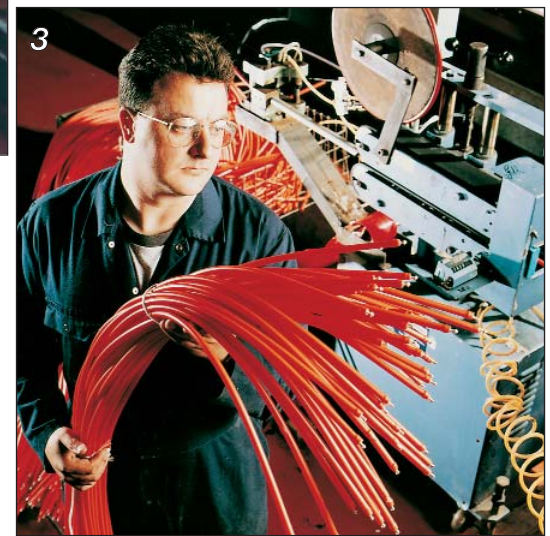
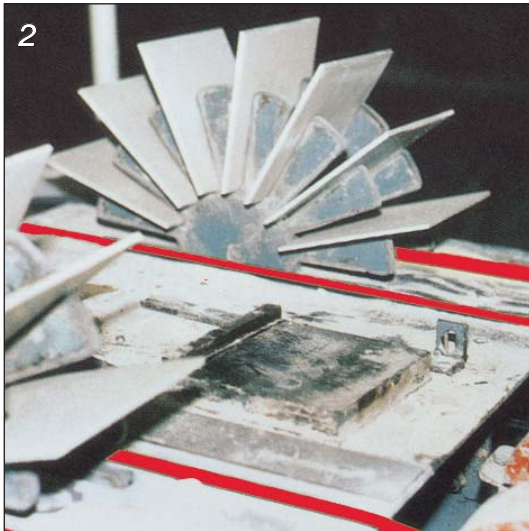
- Welded belts
- Injection moulded belts
- Wipers
- Squeegees
- Hinges
- Seismic streamers
- Hydraulic hose burst protection sleeving

PPL's range of polyurethane extrusions can be used in all industries, including:

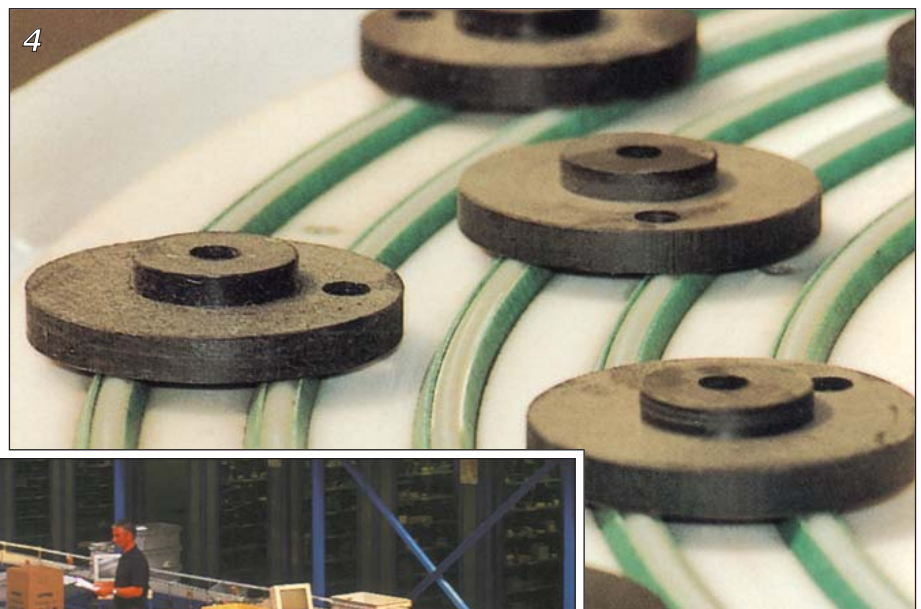
- MINING AND QUARRYING
- METAL WORKING INDUSTRY
- FOOD INDUSTRY
- WOODWORKING
- BRICK MANUFACTURE
- PRINTING, PAPER AND BOARD
- ROOF TILE MANUFACTURE
- TEXTILES
- AGRICULTURE
- GLASS
- DRUM MANUFACTURE
- CERAMICS
- PHARMACEUTICAL
- MATERIALS HANDLING



# TYPICAL APPLICATIONS



1. Greenthane in roof tile conveying.
2. Redthane in ceramics.
3. Emergency 'V' Belts
4. Natural cord conveying around bends.
5. Injection moulded or welded belts used in live roller conveyors.





**Polyurethane Products Ltd**



From our modern processing facility and headquarters in Retford, Nottinghamshire, PPL is able to offer full technical consultation, design, prototype development and complete manufacture for the full range of polyurethane products.

In partnership with our customers and systems' suppliers, we can design your tooling and fully test your components before embarking on the production schedules you require.

In addition to **REDTHANE®** and **GREENTHANE®**, PPL offers a range of polyurethane elastomers using the following processes:

- **HOT CASTING**
- **SPRAY COATING**
- **EXTRUSION**
- **INJECTION MOULDING**
- **MICROCELLULAR POLYURETHANE**
- **ROLLER COATING**

*INDUSTRIES SERVED INCLUDE:*

- **METALWORKING/PRESSWORK**
- **BUILDING & CIVIL ENGINEERING**
- **AGRICULTURAL**
- **STEEL PROCESSING**
- **MINING AND QUARRYING**
- **WATER**
- **PAPER**
- **MATERIALS HANDLING**
- **FOOD PROCESSING**
- **AUTOMOTIVE**
- **AEROSPACE**
- **POWER GENERATION**

*FOR FURTHER INFORMATION CONTACT:*



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