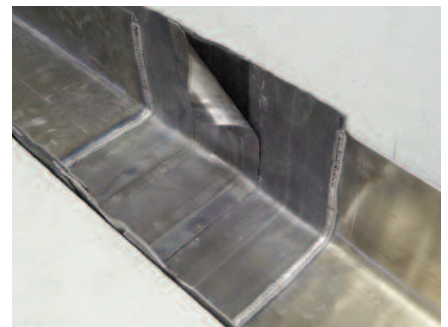
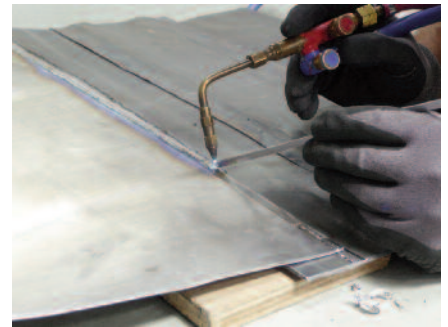
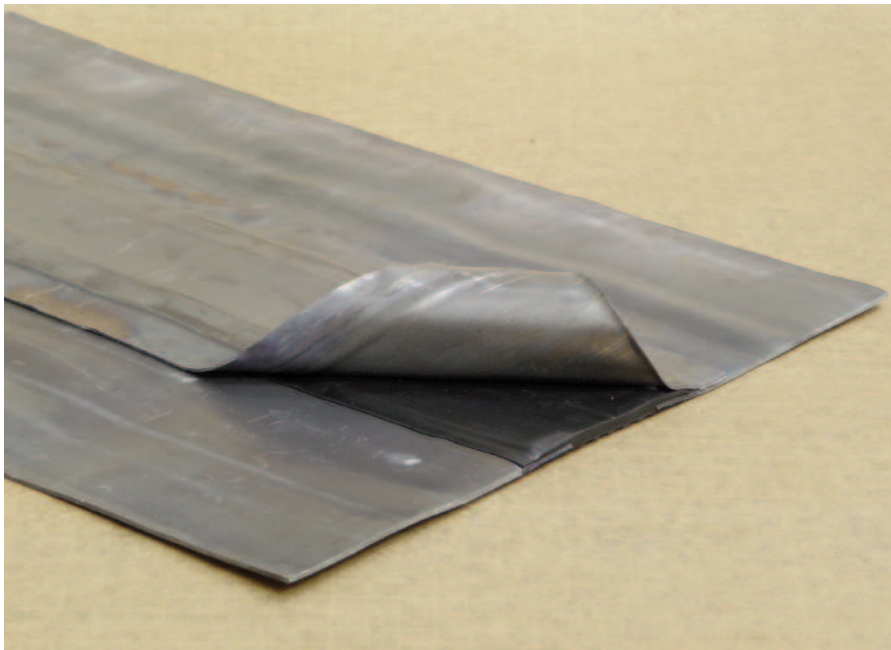




British Lead

# Lead T-Pren Plus Expansion Joints



## A solution for Lead Lined Gutters

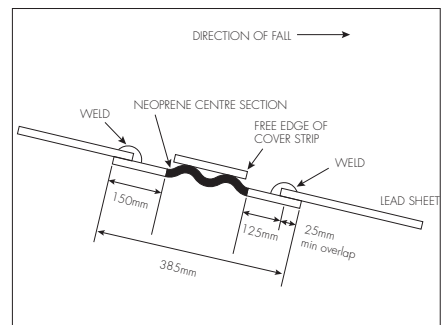
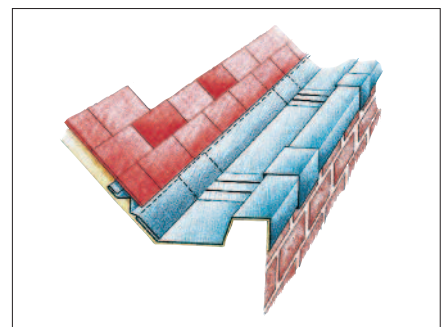
Lead T-Pren Plus has been specifically designed to solve the problems of laying Lead-lined gutters with restricted falls such as stone cornices or eave gutters.

The traditional method uses drips or steps installed at regular intervals. However, in many buildings, the construction detail of the gutter may not be sufficient to accommodate the number of drips required or the restructuring of the gutter necessary to prevent over sizing of the Lead Sheet bays.

Lead T-Pren Plus is quicker to install and a more cost effective alternative to the traditional method of restructuring the gutter detail. The unique protective Lead cover strip maintains a consistent Lead appearance.

### Authority

Lead T-Pren Plus has been recognised by the Lead Sheet Association for use as described above where it is not possible to alter the structure of a building to accommodate the recommended drips or falls. The Rolled Lead Sheet used in T-Pren Plus Expansion Joints conforms to BS EN 12588.



## DESCRIPTION

### Composition and manufacture

The joint comprises two strips of Code 5 Rolled Lead Sheet bonded by vulcanization to a neoprene centre section. A thinner code of Rolled Lead Sheet is used for the cover strip. Normal Lead to Lead welding techniques are used to join the Lead strips to the adjacent Lead gutter lining. The neoprene section takes up expansion. It is important that the Lead T-Pren Plus is fitted so that the bonded edge of the cover strip is uppermost with the fall of the gutter.

### Dimensions

See adjacent diagram. Lead T-Pren Plus is available in 1.5m length rolls measuring 385mm in width.

## PERFORMANCE

T-Pren products are designed to provide a watertight joint accommodating the thermal expansion and contraction caused by extremes of weather. As in all forms of roof structure, localized water pooling may occur, but with no detriment to the life span of the gutter.

### Heat

The neoprene element is suitable for use in the temperature range -40°C to + 100°C with no embrittlement or cracking,

### Light

The neoprene resists the effects of ultra violet radiation.

### Durability

T-Pren has been widely used throughout Europe and the Middle East for more than 35 years with no recorded failure.

### Cover Strip

The cover strip maintains a consistent appearance with the guttering and prevents foot traffic and UV rays reducing the lifespan of the neoprene.

## DESIGN CONSIDERATIONS

T-Pren joints should be fixed at 2m centres for Codes 5 & 6 and 1m either side of fixed points such as outlets and changes in direction.

## SITWORK

Installation requires standard Lead Sheet welding equipment to complete a lap joint between the T-Pren and the gutter lining. Traditional Lead Sheet welding technique for a flat lapped seam should be employed with a minimum lap of 25mm. A single loading along the seam should be sufficient in accordance with Lead Sheet Association guidelines for welding Code 5 Lead Sheet. A double loading is recommended if welding with Code 6 or thicker. Naked flames must be kept away from the neoprene at all times and the strip protected by application of a damp cloth.

It is recommended that a suitable underlay such as BLM Standard Underlay or BLM Grade A1F Class A Building Paper is fitted beneath Lead gutter linings incorporating Lead T-Pren Plus.

After installation the cover strip should be dressed flat to prevent debris becoming lodged beneath it.

Cross section of Lead weld



## Health & Safety

The normal health and safety procedures should be carried out when working with Lead. Operatives should not eat, drink or smoke in any place where contamination could occur.

Hands and arms should be washed before any meals or smoking. Particular care should be exercised when removing old Lead and when Lead welding - refer to Control of Lead at Work Regulations Approved Code of Practice, Regulations and Guidance (COP 2) Revised 2002.

## MAINTENANCE

The company recommends the regular checking of joints.

## ECONOMICS

Guarantee: A 10 year guarantee is given with Lead T-Pren products.

## SUPPLY

Lead T-Pren Products are available from BLM stockists. Orders can be delivered direct to site by BLM. Please contact BLM for your nearest stockist.

## SERVICES

### Technical

Technical advice may be obtained from the company.

## REFERENCES

Further details on the full product range are contained in BLM's Superior Lead Products brochure. Pick up your free copy from any BLM stockist or request a copy by calling 0800 117882. Alternatively you can download a copy of the brochure in PDF format at [www.britishlead.co.uk](http://www.britishlead.co.uk).

BLM were the first Lead manufacturer to obtain both the ISO 9001 quality standard and ISO 14001 environmental accreditation.

**100% of BLM's raw material comes from recycled Lead.**

BLM are a trading division of H. J. Enthoven Limited and part of Eco Bat Technologies, the World's largest Lead recycling group.

BLM are members of the Lead Sheet Association which provides technical guidance and training for users and specifiers of Rolled Lead Sheet. [www.leadsheetassociation.org.uk](http://www.leadsheetassociation.org.uk)