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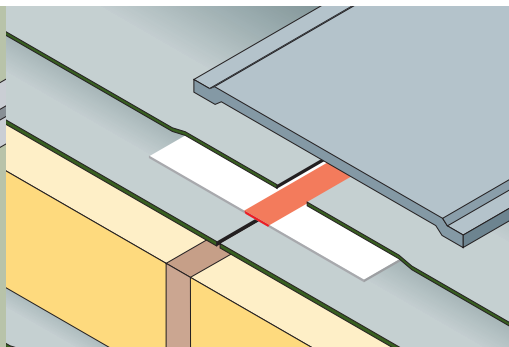
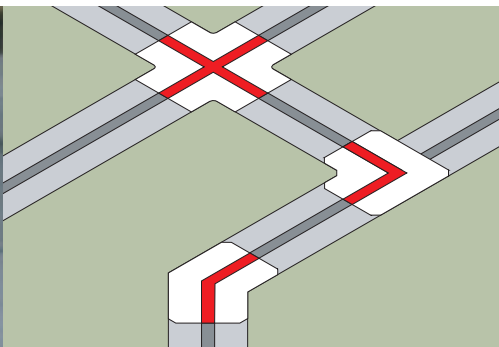
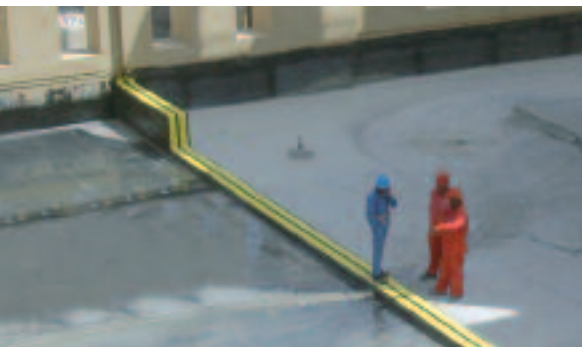


ROOF-PRO

ROOFTOP MANAGEMENT SYSTEMS



REDLINE & FLAMLINE



SEALED FLAT EXPANSION JOINT TAPES

Tel: 01536 383865

REDLINE & FLAMLIN

SEALED FLAT EXPANSION JOINTS

ROOF-PRO offers a fully integrated flat expansion joint sealed into the waterproofing, compatible with bituminous membranes, asphalt and epoxy.

RedLINE is the ideal joint tape for bituminous seals. FlamLINE is a version that is compatible with torch-on roofing membranes.

DESCRIPTION

RedLINE and FlamLINE are ideal for joint repair by continuing the waterproofing integrity through complex changes in direction, and in most refurbishment projects are compatible with the existing waterproofing.

They can be joined together on site with a portable vulcanising machine permitting a phased approach to a continuous joint.

RedLINE

RedLINE consists of a highly elastic movement section made of EPDM and two laterally flexible adhesive flanges. The flanges are reinforced by a polyester fleece that stabilises the EPDM, forcing movement to occur only in the movement section and provides a surface that gives high bonding strength.

FlamLINE

FlamLINE is a version that is compatible with torch-on roofing membranes.

FlamLINE is manufactured from a single flexible sheet of high grade Butyl-Elastomer.

The flanges contain a mesh that, like RedLINE, stabilises the adhesive flanges for sealing the waterproofing membrane to it. Movement is again forced to occur in the movement section that is positioned over the expansion joint.

ADVANTAGES

RedLINE

- Stabilised adhesive flanges provide excellent bonding surface and prevent stress to waterproofing seal.
- Excellent bonding to roof membranes.
- Expansion area has high level of elasticity that bridges 3-dimensional movement (50mm) whilst shear or transverse loads are absorbed entirely by the movement area.
- Vulcanised sections – no weak points.
- Easy to install.
- No need to build complex substructures (ie curbs) and bolted joints thanks to the 'sandwich' method.
- Adapts to all joints smoothly and without difficulty, whilst shear or transverse loads are absorbed entirely by the expansion area.
- Thin – no buildup to accommodate.
- Flat – no loops or complex shapes to join; can accommodate difficult changes in direction.
- On-site vulcanising available for phased installation.
- Shaped mouldings follow the expansion joint and vulcanised to the main run to form a continuous sealed joint.

FlamLINE

Same as RedLINE, plus:

- Torch receivable expansion joint.

TECHNICAL DATA

Both products show the following properties:

- Excellent resistance against attack from ozone.
- Long term high temperature resistance (up to +90°C).
- High flexibility at low temperature (down to -40°C).
- Highly resistant to alkaline, acidic and saline solutions.
- Highly resistant to water and steam.
- Highly resistant to polar solvents, such as alcohol and ketone.

As with the waterproofing membrane, prolonged contact with the following agents should be avoided:

- Mineral oils.
- Benzene.
- Fuels and aromatic compounds such as toluene.

QUALITY ASSURANCE

RedLINE is manufactured to ISO 9001/EN 29001 since 1990.

Technical Data

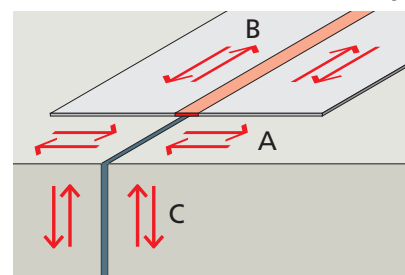
Characteristics	Unit	Tested to	RedLINE	FlamLINE
Hardness	Shore A	DIN 53505	45±5	55±5
Tensile strength	N/mm ²	DIN 53504	>10	>6
Elongation	%	DIN 53504	>500	>700
Tear strength	N/mm	DIN 53507	>5	>10
Water vapour permeability	g/m ² /day	DIN 53122	<2.50	0.817*
Fire rating	–	DIN 4102	–	DIN 4102-B2

*height 0.55mm, my-factor = ca. 240000

Tolerances in mm

Type of movement	RedLINE 20	RedLINE 40	RedLINE 240	FlamLINE 20	FlamLINE 40
A Longitudinal movement	max ±20	max ±40	max ±240	max ±20	max ±40
B Lateral movement	max ±10	max ±20	max ±120	max ±10	max ±20
C Vertical movement	max ±15	max ±30	max ±180	max ±15	max ±30

Movement tolerance key



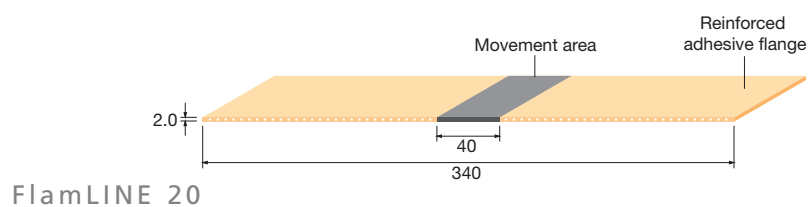
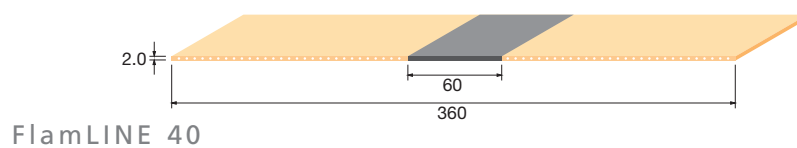
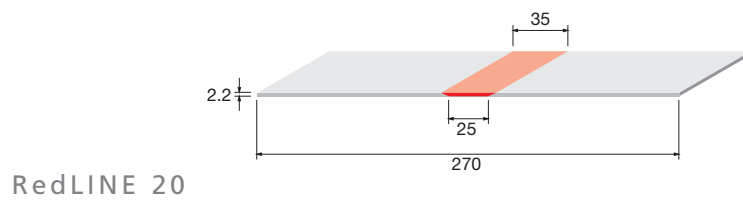
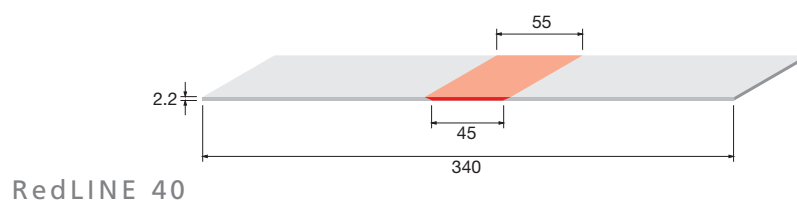
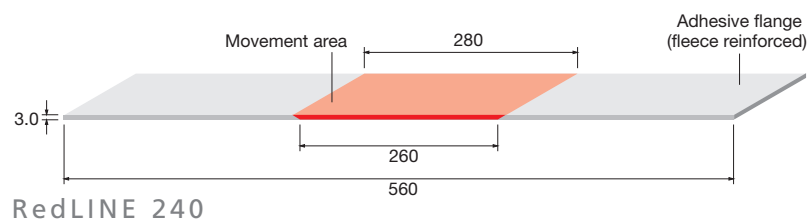
REDLINE & FLAMLINE

SEALED FLAT EXPANSION JOINTS



The extended range of ROOF-PRO flat expansion joints will allow the users to meet any situation.

DIMENSIONS



REDLINE & FLAMLINER

STANDARD SHAPE MOULDINGS

ROOF-PRO can manufacture any special junction to follow the most complicated movement joint.

SPECIFIC ON-SITE CONSULTATION

Large construction projects frequently require very complex and extensive joint tape units. ROOF-PRO offers to survey the entire building construction area and prefabricate the joint tape units to suit. We can also help you draft the relevant tender documentation.

SHAPES

Standard

The flexible joint tape components are easily adapted to the configuration of a building. In addition to the main straight length (cut to required size), ROOF-PRO offers as part of the standard range, the following shaped mouldings for use at a variety of junctions:

- Internal and external corner pieces.
- Cross pieces and end pieces.
- Tee pieces.
- Change of direction 90°.
- Mitre joints.

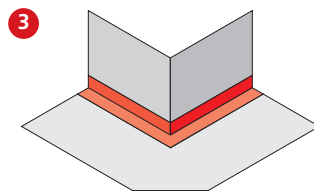
Special Fabrication

A great number of construction problems cannot be solved by standard shaped mouldings alone. Our machines, and the characteristics of the material, make it possible to tailor-make shaped mouldings for almost any application, such as:

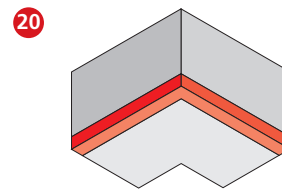
- Curves.
- Corner pieces with non-standard angles.
- Changes of direction (mitres).
- Separators for metal joints.
- Pillar joints.

Please contact ROOF-PRO for more information.

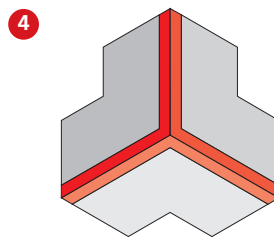
STANDARD SHAPES



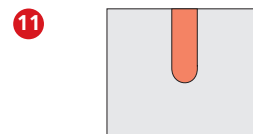
External corner piece 90°



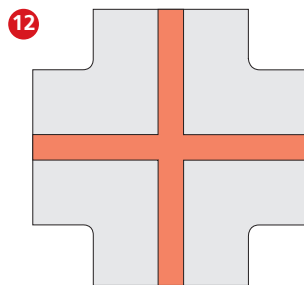
Internal corner piece 90°



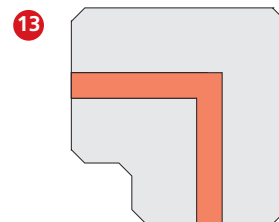
3-D Internal corner piece



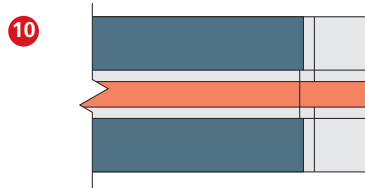
End piece



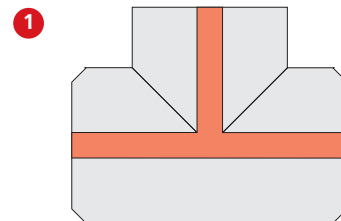
Cross piece



Change of direction 90°



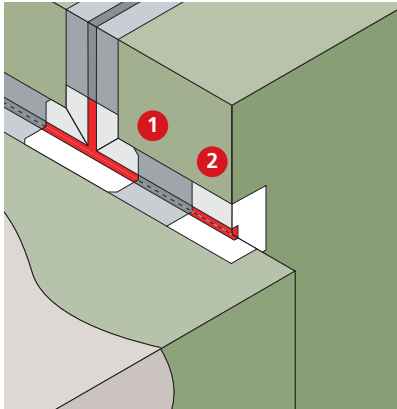
Straight roll length



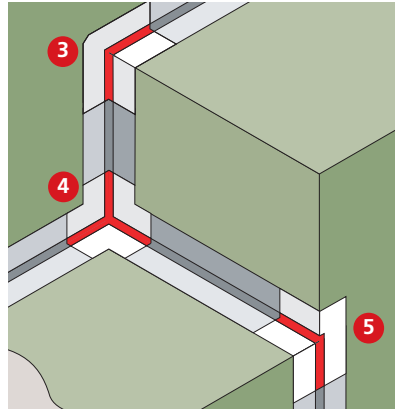
Tee piece

*Note:
The numbers refer to the location of these standard shapes where shown in the application examples opposite.*

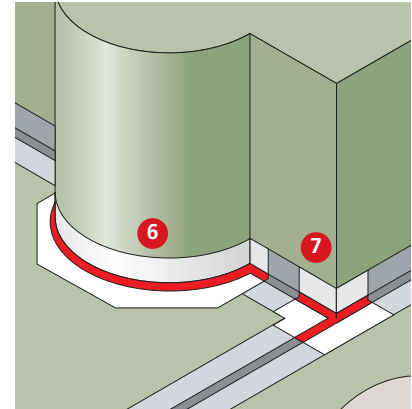
REDLINE & FLAMLINE APPLICATION EXAMPLES



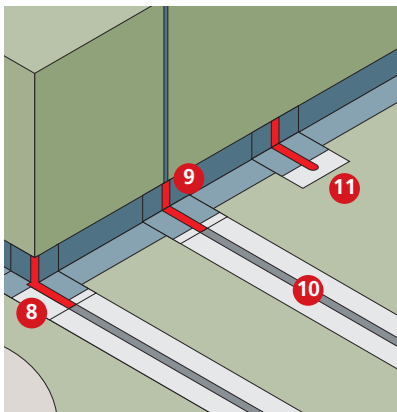
1. Tee piece
2. External corner piece – special
(can also be handed)



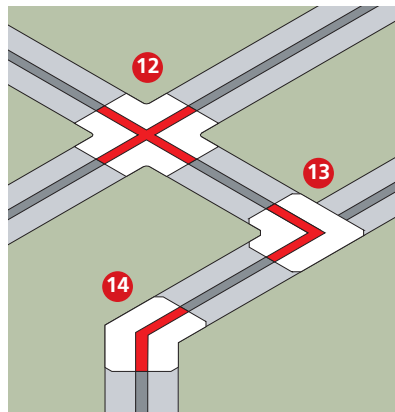
3. External corner piece 90° – standard
4. 3-D Internal corner piece – standard
5. External corner piece 90° – special
(can also be handed)



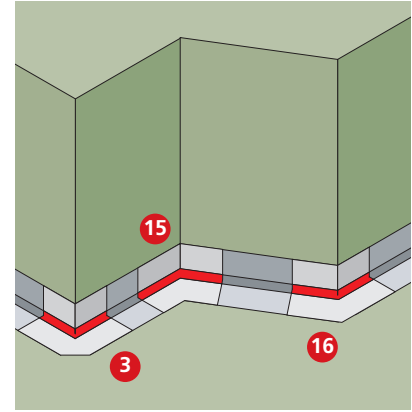
6. Curved piece – special
7. 3-D External corner piece – special
(can also be handed)



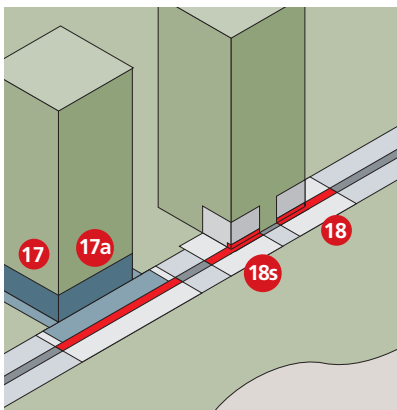
8. Transition piece with corner – special
(can also be handed)
9. Transition piece with metal sheet – special
10. Straight roll length – standard
11. End piece – standard



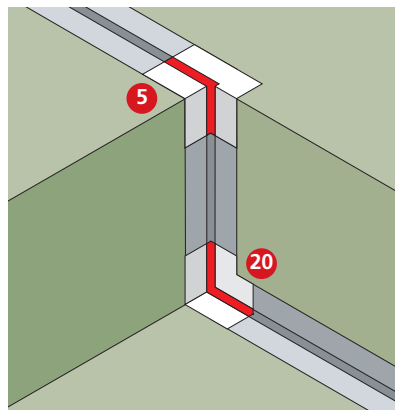
12. Cross piece – standard
13. Change of direction 90° – standard
14. Change of direction 45° – special



3. External corner piece 90° – standard
15. Internal corner piece – special angles
16. External corner piece – special angles



17. Separator for metal joint (on 2 or more sides) – special
- 17a. Separator for metal joint (on 1 side) – special
18. Pillar joint piece – special
- 18s. Pillar joint piece (handed) – special



5. External corner piece 90° – special
(can also be handed)
20. Internal corner piece 90° – standard

NOTE: These diagrams show some examples of the component shapes and configurations available to the designer.

However, any shape can be fabricated to order. Please contact ROOF-PRO for more information.

REDLINE & FLAMLIN INSTALLATION

BEFORE STARTING

- Lay out the RedLINE/FlamLINE tape and check its length.
- The tape can be stretched up to 3mm per metre.
- Before installation notify the supplier of any noticeable discrepancies.
- Install RedLINE/FlamLINE with the marked side facing you.
- Ensure that the joint tape is completely dry before beginning with the bonding procedure.
- The bitumen must be heated to a minimum temperature of 220°C (check with manufacturer).
- After sealing, press firmly with a scraper.
- Only bitumen-coated RedLINE tapes should be exposed to naked flames.
- After laying, provide mechanical protection for the RedLINE/FlamLINE expansion area, eg in the form of a protective building mat or polymer bituminous strip and fix at intermittent points only.
- RedLINE/FlamLINE tapes must always be installed using the sandwich method.

INSTALLATION

Procedures for both RedLINE and FlamLINE

Preparation

Clean the surface 500mm either side of the movement joint. Ensure the surface is dry and free of dust. Caulk the joint using a suitable filler.

Primer

Apply primer to the area receiving the first layer of membrane. Allow to dry.

First layer

Fully bond the underlay or the first layer either side of the movement joint.

Procedure for RedLINE/FlamLINE

Position the RedLINE/FlamLINE movement area directly over the expansion joint on top of the bonded first waterproofing layer. (FlamLINE shown)

Procedure for RedLINE

Fully bond both white polyester mesh flanges in hot bitumen. Trowel firmly in place.

Second Layer

Sandwich the polyester mesh using a strip of membrane (minimum 330mm width) fully bonded in hot bitumen either side of the RedLINE tape. This completes the sandwich method.

Both sides of the RedLINE tape are to be sandwiched between waterproofing.

Procedure for FlamLINE

FlamLINE follows the same principles as RedLINE.

Torch activate the waterproofing membrane and unroll the FlamLINE tape into the hot molten bitumen. Fully bond both sides of the adhesive flange into hot bitumen. Trowel firmly in place.



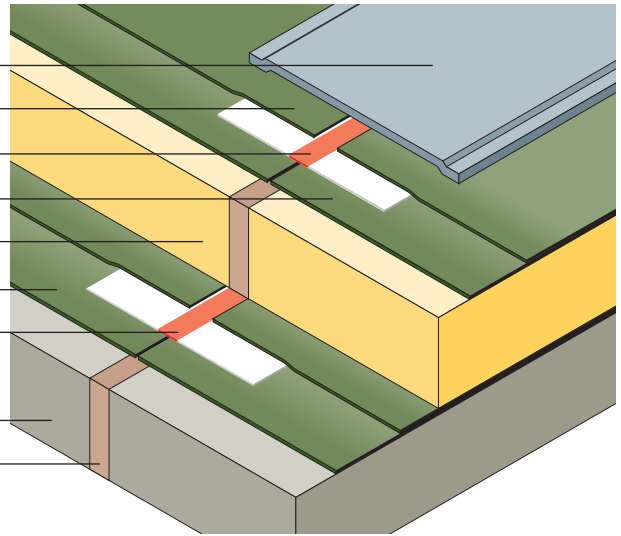
REDLINE & FLAMLINER

APPLICATION DETAILS



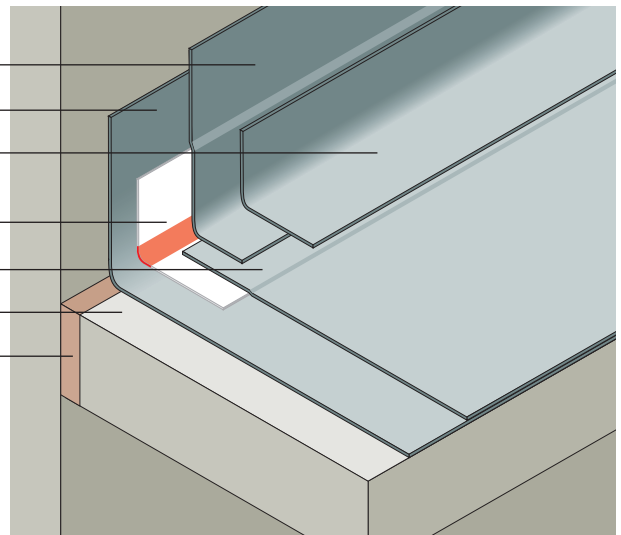
RedLINE – Insulation Detail

- Mechanical protection
- Waterproof 2nd layer
- RedLINE joint tape
- Waterproof 1st layer
- Thermal insulation
- Waterproof layer
- RedLINE joint tape
- Deck
- Packing



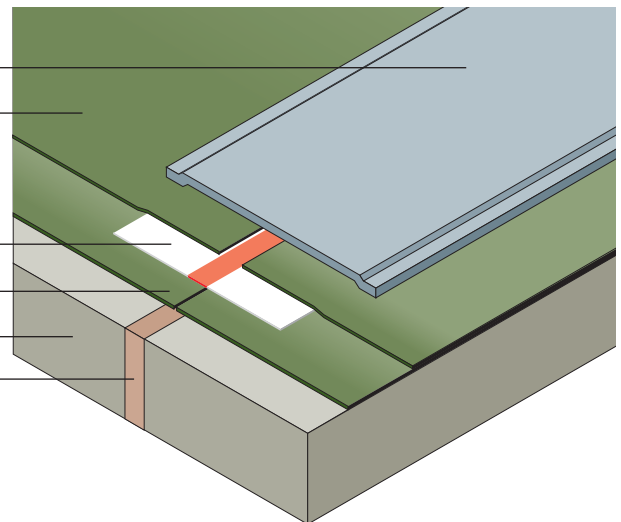
RedLINE – Corner Detail

- Waterproof 2nd layer
- Waterproof 1st layer
- Mechanical protection with protective building mat
- RedLINE joint tape
- Waterproof layer
- Deck
- Packing



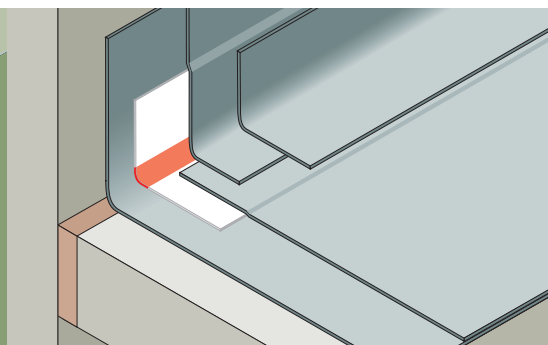
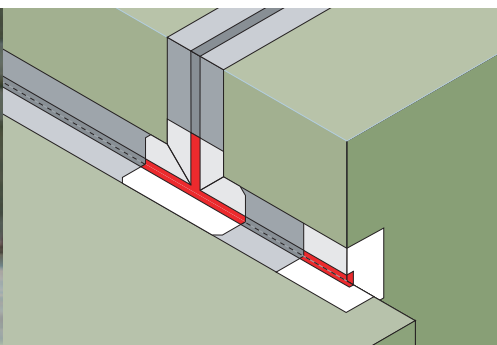
RedLINE – Typical Detail

- Mechanical protection
- Waterproof 2nd layer
- RedLINE joint tape
- Waterproof 1st layer
- Deck
- Packing





REDLINE & FLAMLINER



E-MAIL ADDRESSES

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