

FlamLINE® 20 Torch Grade Waterproof Expansion Joint

DESCRIPTION

FlamLINE is a torchable waterproof expansion joint that is used with torch applied roofing and waterproofing membranes.

FlamLINE is manufactured from a proprietary copolymer with polyester reinforcement. FlamLINE's superior qualities allow for monolithic seam vulcanization, tri-directional movement and high fire resistance. The adhesion to the waterproofing membrane sheet is torch-welded. The torchable membrane is heated and the liquefied asphalt penetrates into the FlamLINE dimpled surface for a homogenous bond. FlamLINE is compatible with torchable asphaltic and coal tar pitch membranes, as well as peel and stick membrane.

All detailing is factory manufactured to suit site specific requirements. FlamLINE is delivered to the job site in one continuous roll for the project. All seaming is a proprietary vulcanization process, which results in monolithic and elastic seams. Seaming can also be done on site if required.

The flat profile of the torchable waterproof FlamLINE expansion joint is unobtrusive to finishes and allows for free flow of water over the joint.

TYPICAL USES

FlamLINE waterproof expansion joint system is specifically designed to be used with torch down modified bitumen membranes. Typical uses include;

- Roof Expansion Joints
- Sub Grade Expansion Joints
- Plaza Deck Expansion Joints
- Parking Garage Expansion Joints
- Protected Membrane Expansion Joints
- Tunnel Expansion Joints
- Vertical Wall Expansion Joints
- Bridge Expansion Joints
- Building Closure Joints
- Roof Control Joints



FlamLINE installed in a torch down system

EXPANSION/CONTRACTION RANGE DATA

The FlamLINE waterproof expansion joint system is designed to accommodate 3 way movements concurrently:

Movement	FlamLINE 20
Horizontal	± 1" [± 25 mm]
Vertical	± ½" [± 13 mm]
Shear	± ½" [± 13 mm]

TECHNICAL DATA

Property & Test Method	Results
Hardness Shore A ASTM D-2240	55 ± 5
Lap Joint Strength ASTM D-816	Same as base material
Low Temperature Flex ASTM D-746	-70°F [-57°C]
Maximum Torching Temperature:	1600°F [870°C]
Ultimate Elongation ASTM D-412	700 %
Tensile Strength ASTM D-624 (min.)	44.8 lbs/in [8.00 N/mm]
Water absorption ASTM D-570 (min.)	< 0.001 %
UV Exposure ASTM G-53 5000 hours	No cracks or Cracking
Chemical Resistance to: Acids, Alkalis, Polar Solvents Saline Solutions	No effect

PHYSICAL DATA

Property	FlamLINE
Thickness	0.088" [2.2 mm]
Roll Width	14" [350 mm]
Joint Gap Gauge Width	1½" [38 mm]
Roll Length	Endless
Weight	0.67lb/ft [1.00kg/m]
Color	Black

STORAGE

Store rolls on end, on original pallets or elevated platform. Protect from weather or store in an enclosed area.

SURFACE PREPARATION

Refer to roofing/waterproofing manufacturer's guide specifications and recommendations for detailed roofing/waterproof membrane application information. All surfaces must be dry and clean of debris, prior to application.

MODIFIED BITUMEN MEMBRANE TORCHING APPLICATION

Step 1 Preparation:

Identify the start installation location from the plan accompanying the roll of FlamLINE waterproof expansion joint material. Roll out the FlamLINE and allow it to relax, until flat, prior to application. Make sure that the building expansion joint is clean and free of debris and has been packed with compressible batt insulation or a backer rod installed. Align the center line of the expansion joint gap or gap with the centre line of the FlamLINE waterproof expansion joint material, and verify the FlamLINE conformance to site details prior to the torching application.

Step 2 Torching:

Method A. Apply heat to the waterproofing ply and embed the FlamLINE into it, using the "torch and flop" technique. Press the FlamLINE into the hot waterproofing with a blunt putty knife.

Method B. Apply heat to the waterproofing ply and unroll the FlamLINE into it. Press the FlamLINE into the hot waterproofing with a blunt putty knife.

Step 3 Flashing in:

Flash in the FlamLINE with a compatible torch down flashing ply, encapsulating the FlamLINE. After installation provide mechanical protection for the FlamLINE waterproof expansion joint.

PEEL AND STICK MEMBRANE APPLICATION

Step 1 Preparation:

Identify the start installation location from the plan accompanying the roll of FlamLINE waterproof expansion joint material. Roll out the FlamLINE and allow it to relax, until flat, prior to application. Make sure that the building expansion joint is clean and free of debris and has been packed with compressible batt insulation or a backer rod installed.

Step 2 Priming:

Apply a compatible primer recommended by the Peel and Stick membrane manufacturer, to both the FlamLINE surface and the substrate. Allow the primer to flash off.

Step 3 Application:

Align the center line of the expansion joint gap or gap with the centre line of the FlamLINE waterproof expansion joint material, and verify the FlamLINE conformance to site details. Apply the Peel and Stick membrane to the primed FlamLINE surface. Use a roller to apply uniform pressure to the bond.

ADDITIONAL PROTECTION COURSE

FlamLINE can be additionally protected from mechanical damage by the installation of a 12" [350 mm] wide strip of modified bitumen cap sheet, secured by mopping or torching to one side of the expansion joint. Alternatively in the case of waterproofing a generic protection board can be used, and a variety of toppings or finishes applied, e.g. asphalt, concrete, stamped concrete.



FlamLINE[®] 40 Torch Grade Waterproof Expansion Joint

DESCRIPTION

FlamLINE is a torchable waterproof expansion joint that is used with torch applied roofing and waterproofing membranes.

FlamLINE is manufactured from a proprietary copolymer with polyester reinforcement. FlamLINE's superior qualities allow for monolithic seam vulcanization, tri-directional movement and high fire resistance. The adhesion to the waterproofing membrane sheet is torch-welded. The torchable membrane is heated and the liquefied asphalt penetrates into the FlamLINE dimpled surface for a homogenous bond. FlamLINE is compatible with torchable asphaltic and coal tar pitch membranes, as well as peel and stick membrane.

All detailing is factory manufactured to suit site specific requirements. FlamLINE is delivered to the job site in one continuous roll for the project. All seaming is a proprietary vulcanization process, which results in monolithic and elastic seams. Seaming can also be done on site if required.

The flat profile of the torchable waterproof FlamLINE expansion joint is unobtrusive to finishes and allows for free flow of water over the joint.

TYPICAL USES

FlamLINE waterproof expansion joint system is specifically designed to be used with torch down modified bitumen membranes. Typical uses include;

- Roof Expansion Joints
- Sub Grade Expansion Joints
- Plaza Deck Expansion Joints
- Parking Garage Expansion Joints
- Protected Membrane Expansion Joints
- Tunnel Expansion Joints
- Vertical Wall Expansion Joints
- Bridge Expansion Joints
- Building Closure Joints
- Roof Control Joints



FlamLINE installed in a torch down system

EXPANSION/CONTRACTION RANGE DATA

The FlamLINE waterproof expansion joint system is designed to accommodate 3 way movements concurrently:

Movement	FlamLINE 40
Horizontal	± 2" [± 50 mm]
Vertical	± ¾" [± 20 mm]
Shear	± ¾" [± 20 mm]

TECHNICAL DATA

Property & Test Method	Results
Hardness Shore A ASTM D-2240	55 ± 5
Lap Joint Strength ASTM D-816	Same as base material
Low Temperature Flex ASTM D-746	-70°F [-57°C]
Maximum Torching Temperature:	1600°F [870°C]
Ultimate Elongation ASTM D-412	700 %
Tensile Strength ASTM D-624 (min.)	44.8 lbs/in [8.00 N/mm]
Water absorption ASTM D-570 (min.)	< 0.001 %
UV Exposure ASTM G-53 5000 hours	No cracks or Cracking
Chemical Resistance to: Acids, Alkalis, Polar Solvents Saline Solutions	No effect

PHYSICAL DATA

Property	FlamLINE
Thickness	0.088" [2.2 mm]
Roll Width	14" [350 mm]
Joint Gap Gauge Width	2¼" [57 mm]
Roll Length	Endless
Weight	0.74lb/ft [1.10kg/m]
Color	Black

STORAGE

Store rolls on end, on original pallets or elevated platform. Protect from weather or store in an enclosed area.

SURFACE PREPARATION

Refer to roofing/waterproofing manufacturer's guide specifications and recommendations for detailed roofing/waterproof membrane application information. All surfaces must be dry and clean of debris, prior to application.

MODIFIED BITUMEN MEMBRANE TORCHING APPLICATION

Step 1 Preparation:

Identify the start installation location from the plan accompanying the roll of FlamLINE waterproof expansion joint material. Roll out the FlamLINE and allow it to relax, until flat, prior to application. Make sure that the building expansion joint is clean and free of debris and has been packed with compressible batt insulation or a backer rod installed. Align the center line of the expansion joint gap or gap with the centre line of the FlamLINE waterproof expansion joint material, and verify the FlamLINE conformance to site details prior to the torching application.

Step 2 Torching:

Method A. Apply heat to the waterproofing ply and embed the FlamLINE into it, using the "torch and flop" technique. Press the FlamLINE into the hot waterproofing with a blunt putty knife.

Method B. Apply heat to the waterproofing ply and unroll the FlamLINE into it. Press the FlamLINE into the hot waterproofing with a blunt putty knife.

Step 3 Flashing in:

Flash in the FlamLINE with a compatible torch down flashing ply, encapsulating the FlamLINE. After installation provide mechanical protection for the FlamLINE waterproof expansion joint.

PEEL AND STICK MEMBRANE APPLICATION

Step 1 Preparation:

Identify the start installation location from the plan accompanying the roll of FlamLINE waterproof expansion joint material. Roll out the FlamLINE and allow it to relax, until flat, prior to application. Make sure that the building expansion joint is clean and free of debris and has been packed with compressible batt insulation or a backer rod installed.

Step 2 Priming:

Apply a compatible primer recommended by the Peel and Stick membrane manufacturer, to both the FlamLINE surface and the substrate. Allow the primer to flash off.

Step 3 Application:

Align the center line of the expansion joint gap or gap with the centre line of the FlamLINE waterproof expansion joint material, and verify the FlamLINE conformance to site details. Apply the Peel and Stick membrane to the primed FlamLINE surface. Use a roller to apply uniform pressure to the bond.

ADDITIONAL PROTECTION COURSE

FlamLINE can be additionally protected from mechanical damage by the installation of a 12" [350 mm] wide strip of modified bitumen cap sheet, secured by mopping or torching to one side of the expansion joint. Alternatively in the case of waterproofing a generic protection board can be used, and a variety of toppings or finishes applied, e.g. asphalt, concrete, stamped concrete.



FlamLINE[®] 240 Torch Grade Waterproof Expansion Joint

DESCRIPTION

FlamLINE is a torchable waterproof expansion joint that is used with torch applied roofing and waterproofing membranes.

FlamLINE is manufactured from a proprietary copolymer with polyester reinforcement. FlamLINE's superior qualities allow for monolithic seam vulcanization, tri-directional movement and high fire resistance. The adhesion to the waterproofing membrane sheet is torch-welded. The torchable membrane is heated and the liquefied asphalt penetrates into the FlamLINE dimpled surface for a homogenous bond. FlamLINE is compatible with torchable asphaltic and coal tar pitch membranes, as well as peel and stick membrane.

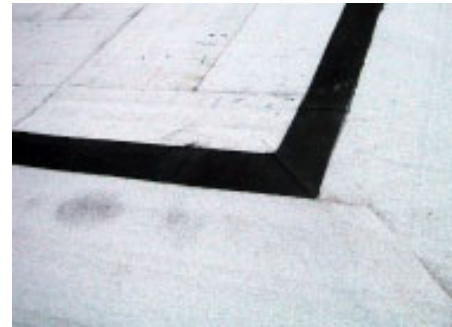
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TYPICAL USES

FlamLINE waterproof expansion joint system is specifically designed to be used with torch down modified bitumen membranes. Typical uses include;

- Roof Expansion Joints
- Sub Grade Expansion Joints
- Plaza Deck Expansion Joints
- Parking Garage Expansion Joints
- Protected Membrane Expansion Joints
- Tunnel Expansion Joints
- Vertical Wall Expansion Joints
- Bridge Expansion Joints
- Building Closure Joints
- Roof Control Joints



FlamLINE installed in a torch down system

EXPANSION/CONTRACTION RANGE DATA

The FlamLINE waterproof expansion joint system is designed to accommodate 3 way movements concurrently:

Movement	FlamLINE 240
Horizontal	± 10" [± 250 mm]
Vertical	± 4" [± 100 mm]
Shear	± 4" [± 100 mm]

TECHNICAL DATA

Property & Test Method	Results
Hardness Shore A ASTM D-2240	55 ± 5
Lap Joint Strength ASTM D-816	Same as base material
Low Temperature Flex ASTM D-746	-70°F [-57°C]
Maximum Torching Temperature:	1600°F [870°C]
Ultimate Elongation ASTM D-412	700 %
Tensile Strength ASTM D-624 (min.)	44.8 lbs/in [8.00 N/mm]
Water absorption ASTM D-570 (min.)	< 0.001 %
UV Exposure ASTM G-53 5000 hours	No cracks or Cracking
Chemical Resistance to: Acids, Alkalis, Polar Solvents Saline Solutions	No effect

PHYSICAL DATA

Property	FlamLINE
Thickness	0.118" [3.0 mm]
Roll Width	21¾" [540 mm]
Joint Gap Gauge Width	10" [250 mm]
Roll Length	Endless
Weight	1.65lb/ft [2.45kg/m]
Color	Black

STORAGE

Store rolls on end, on original pallets or elevated platform. Protect from weather or store in an enclosed area.

SURFACE PREPARATION

Refer to roofing/waterproofing manufacturer's guide specifications and recommendations for detailed roofing/waterproof membrane application information. All surfaces must be dry and clean of debris, prior to application.

MODIFIED BITUMEN MEMBRANE TORCHING APPLICATION

Step 1 Preparation:

Identify the start installation location from the plan accompanying the roll of FlamLINE waterproof expansion joint material. Roll out the FlamLINE and allow it to relax, until flat, prior to application. Make sure that the building expansion joint is clean and free of debris and has been packed with compressible batt insulation or a backer rod installed. Align the center line of the expansion joint gap or gap with the centre line of the FlamLINE waterproof expansion joint material, and verify the FlamLINE conformance to site details prior to the torching application.

Step 2 Torching:

Method A. Apply heat to the waterproofing ply and embed the FlamLINE into it, using the "torch and flop" technique. Press the FlamLINE into the hot waterproofing with a blunt putty knife.

Method B. Apply heat to the waterproofing ply and unroll the FlamLINE into it. Press the FlamLINE into the hot waterproofing with a blunt putty knife.

Step 3 Flashing in:

Flash in the FlamLINE with a compatible torch down flashing ply, encapsulating the FlamLINE. After installation provide mechanical protection for the FlamLINE waterproof expansion joint.

SELF ADHERED MEMBRANE APPLICATION

Step 1 Preparation:

Identify the start installation location from the plan accompanying the roll of FlamLINE waterproof expansion joint material. Roll out the FlamLINE and allow it to relax, until flat, prior to application. Make sure that the building expansion joint is clean and free of debris and has been packed with compressible batt insulation or a backer rod installed.

Step 2 Priming:

Apply a compatible primer recommended by the self adhered membrane manufacturer, to both the FlamLINE surface and the substrate. Allow the primer to flash off.

Step 3 Application:

Align the center line of the expansion joint gap or gap with the centre line of the FlamLINE waterproof expansion joint material, and verify the FlamLINE conformance to site details. Apply the self adhered membrane to the primed FlamLINE surface. Use a roller to apply uniform pressure to the bond.

ADDITIONAL PROTECTION COURSE

FlamLINE can be additionally protected from mechanical damage by the installation of a 12" [350 mm] wide strip of modified bitumen cap sheet, secured by mopping or torching to one side of the expansion joint. Alternatively in the case of waterproofing a generic protection board can be used, and a variety of toppings or finishes applied, e.g. asphalt, concrete, stamped concrete.

