

# POLYMAX 180

PREMIUM **SEAMLESS** BUILT UP ROOFING SYSTEM  
PROVIDING OUTSTANDING PERFORMANCE

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HIGH STRENGTH POLYESTER/ASPHALT ROOFING FABRIC ...



FOR CONVENTIONAL OR ELASTOMERIC BUILT-UP ROOFING SYSTEMS



**INDUSTRIES INC.**

MANUFACTURERS OF PROTECTIVE CONSTRUCTION MEMBRANES

# POLYMAX 180

**MEETING THE CHALLENGES OF THE ROOFING INDUSTRY TODAY  
FOR NEW ROOFING AND RE-ROOFING**

A roofing membrane is exposed to the elements 24 hours a day, 7 days a week, year after year. It undergoes stresses caused by expansion and contraction, hot and cold cycles, and shifting of the building. As a roofing membrane ages it may become less able to cope with these stresses and fail, resulting in costly leaks. Seams in the roofing membrane and details around such things as vents, skylights, etc. create likely places for failure. The ideal roofing system would combine a seamless roof installation with a reinforcement capable of withstanding the stresses of the elements .

Polyester has a proven track record as a strong and pliable roofing reinforcement with excellent expansion and contraction characteristics. POLYMAX is made from non-woven spunbonded polyester mat and is provided in a form suitable for hot mop seamless roofing systems, commonly known as Built Up Roofing (BUR).

*Millions of square feet of Polymax  
have been installed throughout  
North America since 1985 with  
outstanding success and performance.*

## **POLYMAX 180 SYSTEM OFFERS:**

## **WHAT IT MEANS TO YOU:**

HIGH TEAR, HIGH TENSILE AND EXCEPTIONAL..... ELONGATION CAPABILITY. *PERFORMANCE UNEQUALLED IN A BUILT UP ROOFING SYSTEM. ROOF SPLITTING COMPLETELY ERADICATED.*

SEAMLESS ROOF BASED ON CONVENTIONAL HOT..... MOPPING. *LESS CHANCE FOR WORKMANSHIP ERRORS.*

OPEN TORCH FLAMES NOT REQUIRED..... *VIRTUALLY NO CHANCE OF FIRE HAZARD.*

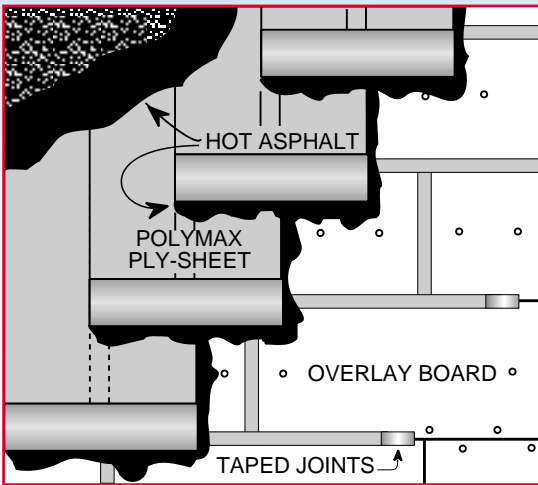
MEETS S107-M CLASS A RATING FOR..... COMBUSTIBLE DECK. *HIGHEST FIRE RATING WHEN GRAVELLED. ACCEPTED ANYWHERE IN NORTH AMERICA.*

ROOFING CONTRACTORS ASSOCIATION OF BRITISH..... COLUMBIA GUARANTEE PROGRAM ACCEPTANCE. *INDUSTRY EXPERTS RECOGNIZE THE BENEFITS OF POLYESTER ROOFING.*

POLYESTER'S PROVEN TRACK RECORD IN ROOFING..... *DURABLE & RELIABLE. 15 & 20 YEAR POLYMAX MATERIAL WARRANTIES PROVIDED.*

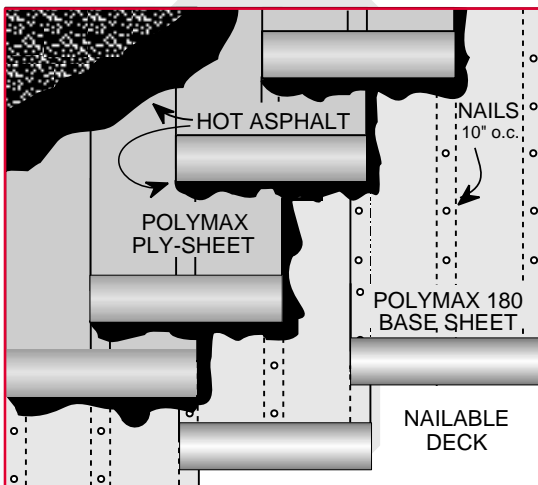
**Polymax 180 polyester roofing felt is not affected by moisture,  
will not become brittle with age and will not rot.**

# B.U.R. INSTALLATION



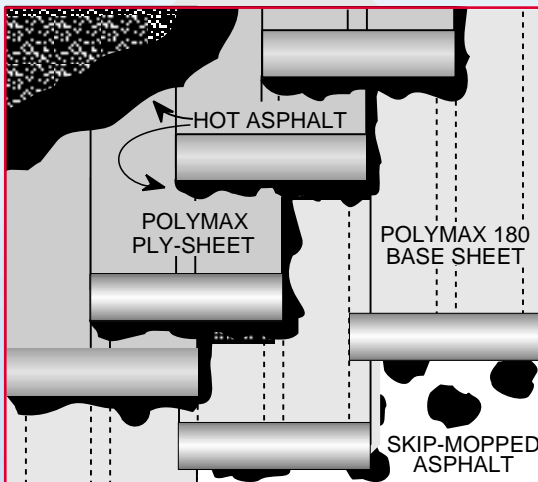
**TWO-PLIES FULLY ADHERED TO OVERLAY BOARD FIG.1**

Inter-Ply Asphalt Rate = 30 - 40 lb./sq.  
 Add a third ply if desired.  
 Pour Coat Asphalt Rate = 45 - 55 lb./sq.



**TWO-PLIES OVER POLYMAX 180 BASE SHEET FIG.2**

Inter-Ply Asphalt Rate = 30 - 40 lb./sq.  
 Pour Coat Asphalt Rate = 45 - 55 lb./sq.



**VENTED ROOF SYSTEM FIG.3**

Skip-Mopped Asphalt Rate = 15 lb./sq.  
 Inter-Ply Asphalt Rate = 30 - 40 lb./sq.  
 Pour Coat Asphalt Rate = 45 - 55 lb./sq.

**1. NEW ROOFING: Two-Ply or Three-Ply Systems:** The following are brief descriptions. For full installation guides contact HAL Industries at 1-800-663-0076.

*a) Two-Plies Fully Adhered To Overlay Board (Fig. 1)*

Fully adhere two plies of POLYMAX 180 Ply-Sheet by hot-mopping directly to a fastened, taped overlay board (either HAL Perma-Board or a Fibreboard). Ensure that a puddle of hot asphalt precedes the advancing roll at all times. Maintain a tight sheet in the direction of rolling. Eliminate air voids by immediately brooming or dry mopping the Ply-Sheet surface where necessary. Keep asphalt temperatures below 460°F at point of application in order to prevent shrinkage or distortion of the polyester reinforcement.

*b) Two-Plies Over POLYMAX 180 Base Sheet (Fig. 2)*

In applications that allow for direct fastening to the roof deck begin by fastening POLYMAX 180 Base Sheet with 3 rows of fasteners spaced 10 inches on centre. Then fully adhere 2 plies of POLYMAX 180 Ply-Sheet as per instructions in (1.a) above.

HAL 28lb Fibreglass Base Sheet may be substituted for POLYMAX 180 Base Sheet if necessary.

*c) Surface - Finish with a standard asphalt pour coat and embedded gravel or alternately mop in a mineral surface cap sheet.*

**NOTE:** Two plies of POLYMAX are fully adequate as a quality roof, however for extra protection and a longer warranty period, 3-ply may be installed.

**2. RE- ROOFING (Without tear-off):**

*a) Vented Roof System (Fig. 3)*

Remove all loose gravel ballast prior to proceeding.

*b) Old roofing will usually contain trapped inter-ply moisture. It is imperative that the new roof will permit this moisture to escape. To achieve this feature, skip-mop POLYMAX 180 Base Sheet to the old roof surface to act as a venting base sheet, or mechanically fasten HAL's Perma-Board over the roof surface. Then fully mop POLYMAX 180 Ply-Sheet as per (1.a) above. To avoid trapping moisture between the old and new roofing membranes perforate old roof membrane with 1/2" holes on a minimum 10' x 10' grid during installation of new roof.*

**NOTE 1:** Elastomeric (SEBS) asphalt may be used in place of conventional asphalt in the described systems for exceptionally superior performance.

**NOTE 2:** If re-roofing results in a net addition of weight to the roof, ensure that the structure can withstand the added load (including snow load).

**NOTE 3:** It shall be the responsibility of the roofer to use good roofing judgement and good workmanship at all times. Unfinished roofing shall be glazed-off at the end of each working day to prevent entry of moisture.

# POLYMAX 180

Weight per roll: 24lbs. (10.9Kg), Width: 40" (1016mm), Roll size: 218ft<sup>2</sup> (20m<sup>2</sup>)

## CCMC 12959-R Evaluation Report Summary

Physical Property	CCMC Standard Requirements	POLYMAX Test Results
Unit Mass of mat min. (g/m <sup>2</sup> ), ASTM D 5726-98	180	190
Thickness min. (mm), ASTM D 5726-98	0.51	1.24
Mass of Bituminous Saturated (asphalt) min. (g/m <sup>2</sup> )	308	395
Percentage of Bituminous Saturant min. (%), ASTM D 146-97	170	206
Breaking Load min. (kN/m), ASTM D 5726-98	MD 5.2 XD 5.2	MD 15.76 XD 8.77
Elongation min. %, ASTM D 5726-98	25	MD 53.53 XD 70.19
Strain Energy kN/m, CGSB 37.56-M	MD 3.0 XD 3.0	MD 6.05 XD 4.22
Trapezoid Tear Strength min. (N), ASTM D 5726-98	107	152.6
Puncture Strength min. (N), ASTM D 5726-98	169	336.9
Pliability @ -5°C, 12.7 mm (1/2 in.) radius bend, ASTM D 146-97	No Failure	Passed
Flatness Test: Dry max. mm and Mopped max. mm, CCMC MasterFormat number 07107	Comparable to flatness of modified bituminous sheet membrane	Passed
Note: MD is Machine Direction, XD is Cross Direction		

## How Does POLYMAX Compare To Other BUR Products?

		POLYMAX 180	No. 15 Organic Felt	Type IV Fibreglass
Trapezoid Tear Strength, (N)	MD	153.7	0.06	0.04
Ultimate Elongation %	MD	53.5	2.4	2.5
	XD	70.2	4.2	3.0
Strain Energy (kN/m)	MD	6.05	0.23	0.18
	XD	4.22	0.11	0.09
Puncture Strength, (N)		337	54	59
Low Temp. Flexibility (Membrane @ -10°C)		Passes	Fail	Fail

The information presented herein is to the best of our knowledge true and accurate. Except when agreed to in writing for specific conditions of use, no warranty or guarantee expressed or implied is made regarding the performance of any product, since the manner of use and handling are beyond our control. The user of such information assumes all risk connected with the use thereof. Nothing contained herein is to be construed as permission or as a recommendation to infringe any patent.



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