

CLASSIFICATION: 07 50 00 Thermal and Moisture Protection: Membrane Roofing

PRODUCT DESCRIPTION: PermaQuik PQ6100 is a one part, hot applied, seamless, self-healing Hot Melt Monolithic membrane roofing system membrane. Consisting of a blend of synthetic and natural rubbers in a specially selected compatible bitumen, PermaQuik PQ6100 combines excellent waterproofing performance with toughness, flexibility, and strong adhesion to a variety of substrates. PermaQuik PQ6100 can be installed with zero falls and is BBA Certified for 'lifetime of the building' in protected (inverted) roof application, including green roofs. Also includes CSI MasterFormats 07 10 00 Dampproofing and Waterproofing; 07 14 00 Fluid-Applied Waterproofing; 07 20 00 Thermal Protection; 07 52 00 Modified Bituminous Membrane Roofing.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format

- Nested Materials Method
- Basic Method

Threshold Disclosed Per

- Material
- Product

Threshold level

- 100 ppm
- 1,000 ppm
- Per GHS SDS
- Per OSHA MSDS
- Other

Residuals/Impurities

- Considered
- Partially Considered
- Not Considered

Explanation(s) provided for Residuals/Impurities?
 Yes No

All Substances Above the Threshold Indicated Are:

Characterized Yes Ex/SC Yes No
% weight and role provided for all substances.

Screened Yes Ex/SC Yes No
All substances screened using Priority Hazard Lists with results disclosed.

Identified Yes Ex/SC Yes No
All substances disclosed by Name (Specific or Generic) and Identifier.

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY
GREENSCREEN SCORE | HAZARD TYPE

PERMAQUIK PQ6100 [ASPHALT / BITUMENS LT-1 | CAN LIMESTONE, CALCIUM CARBONATE LT-UNK STYRENE BUTADIENE RUBBER (SBR) LT-UNK NATURAL RUBBER LATEX LT-UNK | RES LUBRICATING OILS LT-1 | PBT | CAN | MUL CARBON BLACK LT-1 | CAN ZINC OXIDE BM-1 | RES | AQU | MUL SULFUR LT-UNK | SKI MEDIUM-CHAIN CHLORINATED PARAFFINS (MCCP) - ALKANES, C14-17, CHLORO LT-1 | END | PBT | AQU | DEL | MUL | CAN HYDROGEN SULFIDE LT-P1 | AQU | PHY | MAM | END | MUL QUARTZ LT-1 | CAN HYDROXYLAMINE LT-P1 | AQU | PHY | SKI | EYE | CAN | MUL SODIUM METABISULFITE LT-P1 | RES | EYE SODIUM SULPHITE LT-P1 GPPD LT-P1 | MUL | SKI]

Number of Greenscreen BM-4/BM3 contents ... 0

Contents highest concern GreenScreen Benchmark or List translator Score ... BM-1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

This Health Product Declaration (HPD) was completed in accordance with the HPD Standard version 2.1.1, and discloses hazards associated with all substances present at or above 1000 parts per million (ppm) in the finished product, along with the role and percent weight.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

Material (g/l): 0 g/l Regulatory (g/l): 0 g/l
Does the product contain exempt VOCs: No
Are ultra-low VOC tints available: N/A

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: CDPH Standard Method - Not tested
VOC content: EPA Method 24 - Volatile Matter Content (EPA 24)

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients, Option 1

Third Party Verified?

Yes

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2020-01-27

PUBLISHED DATE: 2020-01-28

EXPIRY DATE: 2023-01-27



Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.1.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-1-standard

PERMAQUIK PQ6100

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were “Considered”, as outlined in Emerging Best Practices. Residuals or impurities with the potential to be present at or above the Content Inventory Threshold indicated that return a GS score of BM-1, LT-1, LT-P1 or NoGS have been disclosed, based on information provided in supplier disclosure letters, supplier SDS, and as predicted by process chemistry (Pharos CML).

OTHER PRODUCT NOTES: Percent by weight of substances reported as ranges due to disclosure preference of suppliers.

ASPHALT / BITUMENS

ID: 8052-42-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-01-27

#: 48.90 - 61.10

GS: LT-1

RC: None

NANO: No

ROLE: Waterproofing

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
CANCER	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES: May also include the following: 64741-56-6 [LT-1 | CAN]; 92062-05-0 [NoGS | NF]. Supplier documentation states that no REACH registered substances are present that are assessed to be PBT or vPvB.

LIMESTONE, CALCIUM CARBONATE

ID: 1317-65-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-01-27

#: 26.00 - 30.60

GS: LT-UNK

RC: None

NANO: No

ROLE: Filler

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Identified on the US EPA Safer Chemical Ingredient List (Green Circle - Verified Low Concern).

STYRENE BUTADIENE RUBBER (SBR)

ID: 9003-55-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-01-27**

#: **4.00 - 13.30**

GS: **LT-UNK**

RC: **PostC**

NANO: **No**

ROLE: **Elastomer**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: May include post-consumer recycled content from rubber crumb (recycled tyres).

NATURAL RUBBER LATEX

ID: 9006-04-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-01-27**

#: **3.30 - 4.10**

GS: **LT-UNK**

RC: **PostC**

NANO: **No**

ROLE: **Elastomer**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

RESPIRATORY

MAK

Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES: May include post-consumer recycled content from rubber crumb (recycled tyres).

LUBRICATING OILS

ID: 74869-22-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-01-27**

#: **1.90 - 2.10**

GS: **LT-1**

RC: **None**

NANO: **No**

ROLE: **Lubricating Oil**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

PBT

EC - CEPA DSL

Persistent, Bioaccumulative and inherently Toxic (PBiTH) to humans

CANCER

EU - GHS (H-Statements)

H350 - May cause cancer

CANCER

EU - REACH Annex XVII CMRs

Carcinogen Category 2 - Substances which should be regarded as if they are Carcinogenic to man

MULTIPLE

ChemSec - SIN List

CMR - Carcinogen, Mutagen &/or Reproductive Toxicant

CANCER

EU - Annex VI CMRs

Carcinogen Category 1B - Presumed Carcinogen based on animal evidence

CANCER

GHS - Australia

H350 - May cause cancer

SUBSTANCE NOTES: Supplier documentation for this ingredient states the following: "Highly refined reclaimed base oil. Highly refined mineral oil - DMSO extract <3% (w/w) according to IP346."

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2020-01-27**

%: **1.50 - 2.20** GS: **LT-1** RC: **PostC** NANO: **No** ROLE: **Pigment; R/I**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CANCER	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
CANCER	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES: Carbon Black is one of several compounds with warnings restricted to unbound/respirable forms. May also represent residual/impurity of SBR (Origin: Rubber crumb from recycled tyres), as per Pharos CML (Additive - Non-reactive; Frequent; % Unknown).

ZINC OXIDE

ID: 1314-13-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2020-01-27**

%: **0.20 - 0.30** GS: **BM-1** RC: **None** NANO: **No** ROLE: **Crosslinker**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
CHRON AQUATIC	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters

SUBSTANCE NOTES: GreenScreen Benchmark® assessment score of BM-1 was provided by the HPD Builder Tool.

SULFUR

ID: 7704-34-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2020-01-27**

%: **0.10 - 0.20** GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Modifier**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation

SUBSTANCE NOTES:

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2020-01-27**%: **0.00 - 0.20** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Plasticiser**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ENDOCRINE	EU - Priority Endocrine Disruptors	Category 1 - In vivo evidence of Endocrine Disruption Activity
PBT	EU - ESIS PBT	Under PBT evaluation
PBT	EC - CEPA DSL	Persistent, Bioaccumulative and inherently Toxic (PBiTE) to the Environment (based on aquatic organisms)
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
CHRON AQUATIC	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
DEVELOPMENTAL	EU - GHS (H-Statements)	H362 - May cause harm to breast-fed children
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
PBT	EHP - San Antonio Statement on BFRs & CFRs	Flame retardant substance class of concern for PB&T & long range transport
CHRON AQUATIC	US EPA - PPT Chemical Action Plans	Highly toxic to aquatic organisms
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - ongoing chemical (risk) assessment
CANCER	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
DEVELOPMENTAL	GHS - Australia	H362 - May cause harm to breast-fed children

SUBSTANCE NOTES:

HYDROGEN SULFIDEID: **7783-06-4**HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2020-01-27**%: **Impurity/Residual** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H220 - Extremely flammable gas
MAMMALIAN	EU - GHS (H-Statements)	H330 - Fatal if inhaled
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
MAMMALIAN	US EPA - EPCRA Extremely Hazardous Substances	Extremely Hazardous Substances

SUBSTANCE NOTES: Potential residual of asphalt (8052-42-4) as per supplier documentation.

QUARTZ

ID: 14808-60-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-01-27**

#: **Impurity/Residual** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CANCER	IARC	Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources
CANCER	US NIH - Report on Carcinogens	Known to be Human Carcinogen (respirable size - occupational setting)
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CANCER	GHS - New Zealand	6.7A - Known or presumed human carcinogens
CANCER	GHS - Japan	Carcinogenicity - Category 1A [H350]
CANCER	GHS - Australia	H350i - May cause cancer by inhalation

SUBSTANCE NOTES: Potential impurity of Limestone (1317-65-3) as per Pharos CML (Component; Frequent; 1.00%).

HYDROXYLAMINE

ID: 7803-49-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-01-27**

#: **Impurity/Residual** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H200 - Unstable explosive
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
EYE IRRITATION	EU - GHS (H-Statements)	H318 - Causes serious eye damage
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization
PHYSICAL HAZARD (REACTIVE)	GHS - Korea	H200 - Unstable explosive
PHYSICAL HAZARD (REACTIVE)	GHS - Korea	H290 - May be corrosive to metals

SUBSTANCE NOTES: Potential residual/impurity of Natural Rubber (9006-04-6) as per Pharos CML (Additive - Non-reactive; Frequent; % Unknown).

SODIUM METABISULFITE

ID: 7681-57-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-01-27**

#: **Impurity/Residual** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
EYE IRRITATION	EU - GHS (H-Statements)	H318 - Causes serious eye damage

SUBSTANCE NOTES: Potential residual/impurity of Natural Rubber (9006-04-6), as per Pharos CML (Reactant; Frequent; % Unknown).

SODIUM SULPHITE

ID: 7757-83-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-01-27**

#: **Impurity/Residual** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Potential residual/impurity of Natural Rubber (9006-04-6), as per Pharos CML (Additive - Non-reactive; Frequent; % Unknown).

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2020-01-27**%: **Impurity/Residual** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: **Potential residual/impurity of SBR (9003-55-8), as per Pharos CML (Additive - Non-reactive; Frequent; % Unknown).**

Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

VOC EMISSIONS

CDPH Standard Method – Not tested

CERTIFYING PARTY: **Self-declared**

ISSUE DATE: **2020-**

EXPIRY DATE:

CERTIFIER OR LAB: **N/A**

APPLICABLE FACILITIES: **N/A**

01-01

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: **PermaQuik PQ6100 is applied to the exterior of the building envelope.**

VOC CONTENT

EPA Method 24 - Volatile Matter Content (EPA 24)

CERTIFYING PARTY: **Self-declared**

ISSUE DATE: **2020-**

EXPIRY DATE:

CERTIFIER OR LAB: **N/A**

APPLICABLE FACILITIES: **All**

01-01

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: **VOC content calculated from formulation.**

Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

ESHAPRIMER

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

EshaPrimer is a quick drying black bitumen priming solution designed to penetrate and seal a variety of porous surfaces including masonry, concrete, cementitious screed/renders, existing bituminous waterproofing and structural steelwork. EshaPrimer creates a base seal and improves the adhesion of bituminous waterproofing solutions.

PERMAQUIK PQ2017 REINFORCING FABRIC

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

PQ2017 Reinforcing Fabric is a 50 g/m² 100% spunbonded polyester fabric for use as a reinforcement to PermaQuik PQ6100 hot melt monolithic membrane. PQ2017 polyester reinforcement layer is lightly brushed into the first 3mm (minimum thickness) coat of PermaQuik PQ6100 membrane ensuring complete embedment.

PROTHERM QUANTUM® VACUUM INSULATION PANEL

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

ProTherm Quantum® Inverted Roof Insulation System has been developed to allow the thinnest possible construction. Consisting of Quantum® VIP panels (Vacuum Insulation Panels), Regupol RCM, XPS Infill, XPS layer and Grey Thermal Sheet, a ProTherm Quantum® VIP Inverted Roof System achieves a 'U' value of 0.15 W/mk² using 80% less thickness than a traditional XPS insulation. Quantum® VIP panels consist of a microporous core which is evacuated of air and moisture prior to being encased and sealed in thin, gas-tight special hybrid aluminium. This combination provides outstanding aged design value thermal conductivity of 0.008 W/m.K, thereby achieving the thinnest possible insulation solution available today.

PROTHERM XPS LAYER

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

ProTherm XPS Layer is used to compliment the thermal performance of ProTherm Quantum VIP Panels, and as a packer board to achieve a required height in ProTherm Quantum 'Hybrid' systems. For use in the ProTherm Quantum VIP Insulation System installed over any BBA Certified Inverted roofing systems. ProTherm XPS Layer is a rigid, closed cell type Extruded polystyrene board with integral high density skin. ProTherm XPS Layer has a Zero Ozone Depletion Potential (ODP), a Global Warming Potential (GWP) of less than 5 and an A rating in accordance with the Green Guide to Specification.

PROTHERM G XENERGY SLP

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

ProTherm G XENERGY SLP Inverted Roof Insulation is a unique rigid, closed cell type Extruded polystyrene board with integral high density skin. ProTherm G inverted roof insulation utilizes infra-red blocking particles to scatter and reflect heat radiation. ProTherm G XENERGY SLP Inverted Roof Insulation has a Zero Ozone Depletion Potential (ODP), a Global Warming Potential (GWP) of less than 5 and a Green Guide to Specification A+ rating. For use with Inverted Roof Waterproofing such as PermaQuik PQ6100, EshaFlex, EshaUniversal and ParaFlex. Use with ProTherm XENERGY MinK Water Flow Reducing Layer prior to the installation of paving, ballast, a green roof or timber decking.

PROTHERM XENERGY™ MINK

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

ProTherm XENERGY™ MinK Water Flow Reducing Layer is a spun bonded polyethylene geotextile based upon Tyvek® by DuPont that is waterproof and vapour permeable. ProTherm XENERGY™ MinK Water Flow Reducing Layer replaces the usual separating layer laid between the insulation and ballast, prevented water from reaching the waterproofing layer and almost completely eliminating the rainwater cooling effect. When installed with ProTherm Quantum inverted roof insulation in an inverted roof ProTherm XENERGY MinK Water Flow Reducing Layer reduces the rainwater cooling, reducing the required insulation thickness by 2%. ProTherm XENERGY™ MinK Water Flow Reducing Layer is for use with inverted roof waterproofing such as PermaQuik PQ6100, EshaFlex, EshaUniversal and ParaFlex.

PROTHERM GREY THERMAL SHEET

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

ProTherm Grey Thermal Sheet is a spun bonded polyethylene geotextile based upon Tyvek® by DuPont that is waterproof and vapour permeable. ProTherm Grey Thermal Sheet replaces the usual separating layer laid between the insulation and ballast, prevented water from reaching the waterproofing layer and almost completely eliminating the rainwater cooling effect. When installed with ProTherm Quantum inverted roof insulation in an inverted roof ProTherm Grey Thermal Sheet reduces the rainwater cooling, reducing the required insulation thickness by 2%.

PERMAQUIK PQ2060 DETAILING MEMBRANE

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

PQ2060 is an elastomeric membrane (Neoprene Compound) for use as a reinforcement to PermaQuik PQ6100 hot melt monolithic membrane. PQ2060 is used as a detailing membrane at parapets, outlets and/or blockwork. PQ2060 elastomeric membrane is embedded into the first 3mm (minimum thickness) coat of PermaQuik PQ6100 membrane; overlaps should be at least 75 mm. Installation to be according to guidelines and specifications supplied by Radmat Building Products Ltd.

PERMAQUIK PQ2061 DETAILING MEMBRANE

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

PQ2061 is an elastomeric membrane (Neoprene Compound) for use as a reinforcement to PermaQuik PQ6100 hot melt monolithic membrane. PQ2061 is used as a detailing membrane at parapets, outlets and/or blockwork. PQ2061 elastomeric membrane is embedded into the first 3mm (minimum thickness) coat of PermaQuik PQ6100 membrane; membrane overlaps should be at least 75 mm. Installation to be according to guidelines and specifications supplied by Radmat Building Products Ltd.

PERMAQUIK PQ1800 PROTECTION SHEET

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

PQ1800 Protection Sheet has a bituminous glass fabric as lining and is suitable as a protection/access sheet over PermaQuik PQ6100 in protected inverted roof applications. Loose laid and bedded in PermaQuik PQ6100. Application in accordance with the Radmat specification.

PERMAQUIK STANDARD PROTECTION SHEET

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Standard Protection Sheet is a bituminised polyester mat. Standard Protection Sheet is used as secondary layer or a top surface over PermaQuik PQ6100. Standard Protection Sheet is laid into the upper surface of the PermaQuik PQ6100 whilst the PermaQuik PQ6100 is still hot. Standard Protection Sheet is cut and formed using sharp hand tools; do not expose the Sheet to hydrocarbon based solvent products. Installation to be according to guidelines and specifications supplied by Radmat Building Products Ltd.

PERMAQUIK TEXSA PROTECTION SHEET

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

FLL Certified Texsa Protection Sheet consists of a high performance polyester carrier coated both sides with an APP modified bitumen compound incorporating an anti-root treatment. Texsa Protection Sheet is used as secondary layer or a top surface over PermaQuik PQ6100. Texsa Protection Sheet is laid into the upper surface of the PermaQuik PQ6100 whilst the PermaQuik PQ6100 is still hot. Texsa Protection Sheet is cut and formed using sharp hand tools; do not expose the Sheet to hydrocarbon based solvent products. Installation to be according to guidelines and specifications supplied by Radmat Building Products Ltd.

PROTHERM G XENERGY ULTRA INVERTED ROOF INSULATION

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

ProTherm G XENERGY Ultra Inverted Roof Insulation is a unique rigid, closed cell type extruded polystyrene board with integral high density skin. ProTherm G XENERGY Ultra Inverted Roof Insulation utilises infra-red blocking particles to scatter and reflect heat radiation. ProTherm G XENERGY Ultra Inverted Roof Insulation has a Zero Ozone Depletion Potential (ODP), and a Global Warming Potential (GWP) of less than 5. For use with Inverted Roof Waterproofing such as PermaQuik PQ6100, EshaFlex, EshaUniversal and ParaFlex. Use with ProTherm XENERGY MinK Water Flow Reducing Layer prior to the installation of paving, ballast, a green roof or timber decking.

Developed in Canada in the 1960s, PermaQuik is manufactured in the UK following extensive research and development with Shell UK in an ISO14001 certified production facility. Its unique blend of bitumen, natural rubbers and polymers create a membrane that has self-healing properties, can be installed to zero falls in accordance with BBA Information Bulletin No 4, and has a BBA Certified durability for 'the design life of the roof in which it is incorporated'. Installed to achieve a minimum thickness of 6mm, PermaQuik PQ6100 is finished with either a standard or root prevention wearing sheet prior to being electronically tested. In Inverted Roof applications, Radmat ProTherm Inverted Roof Insulation board and MinK water control layer are installed prior to the chosen surface finish. A range of finishes are possible, including paving, ballast, porcelain tiles and Radmat MedO living green roofs.



MANUFACTURER INFORMATION

MANUFACTURER: **Radmat Building Products Ltd**
 ADDRESS: **Holland House, Valley Way**
Rockingham Road
Market Harborough Leicestershire LE16 7PS, UK
 WEBSITE: **https://radmat.com/**

CONTACT NAME: **Mark Harris**
 TITLE: **Head of Technical and Operations**
 PHONE: **+44 1858 410372**
 EMAIL: **MarkHarris@Radmat.com**

KEY

OSHA MSDS Occupational Safety and Health Administration Material Safety Data Sheet
GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Hazard Types

AQU Aquatic toxicity	GLO Global warming	PHY Physical Hazard (reactive)
CAN Cancer	MAM Mammalian/systemic/organ toxicity	REP Reproductive toxicity
DEV Developmental toxicity	MUL Multiple hazards	RES Respiratory sensitization
END Endocrine activity	NEU Neurotoxicity	SKI Skin sensitization/irritation/corrosivity
EYE Eye irritation/corrosivity	OZO Ozone depletion	LAN Land Toxicity
GEN Gene mutation	PBT Persistent Bioaccumulative Toxic	NF Not found on Priority Hazard Lists

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-P1 List Translator Possible Benchmark 1
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-1 List Translator Likely Benchmark 1
BM-2 Benchmark 2 (use but search for safer substitutes)	LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
BM-1 Benchmark 1 (avoid - chemical of high concern)	NoGS Unknown (no data on List Translator Lists)
BM-U Benchmark Unspecified (insufficient data to benchmark)	

Recycled Types

PreC Preconsumer (Post-Industrial)
PostC Postconsumer
Both Both Preconsumer and Postconsumer
Unk Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms

Inventory Methods:

Nested Method / Material Threshold Substances listed within each material per threshold indicated per material
Nested Method / Product Threshold Substances listed within each material per threshold indicated per product
Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology
Third Party Verified Verification by independent certifier approved by HPDC
Preparer Third party preparer, if not self-prepared by manufacturer
Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- a method for the assessment of exposure or risk associated with product handling or use,
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.