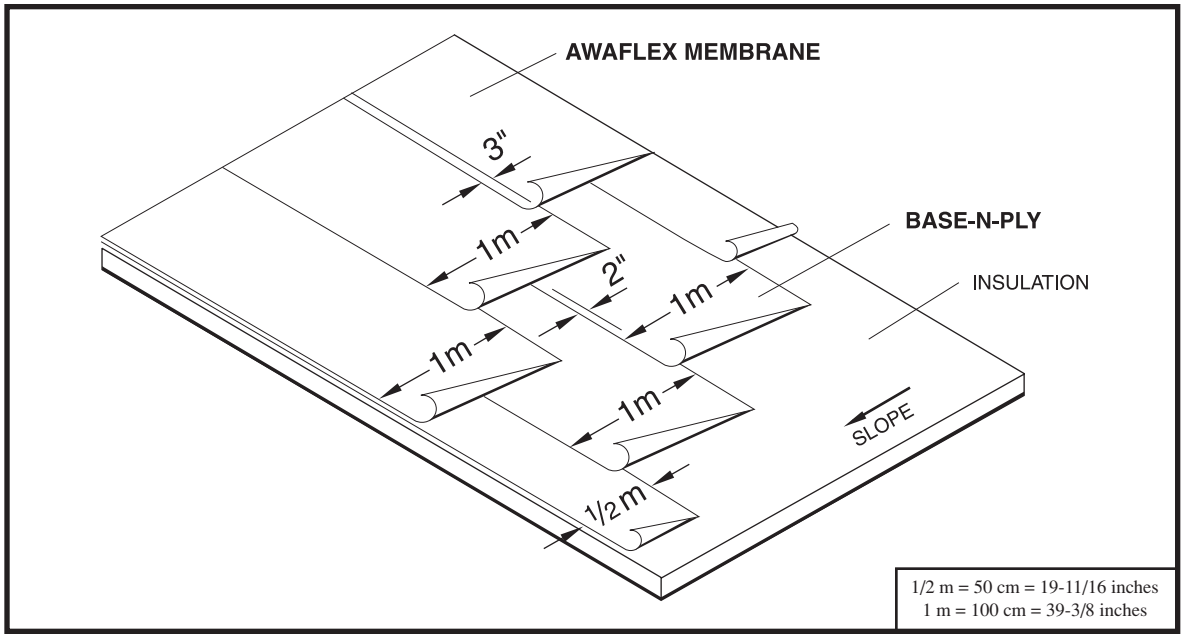
TAMKO BUILDING PRODUCTS

SPECIFICATION SUBMITTAL

1001 AWAFLEX

INSULATED DECKS



Material Requirements

TAMKO BASE-N-PLY® Fiberglass Sheet	**1 ply**
TAMKO AWAFLEX®	**1 ply**
Asphalt (Per 100 sq. ft.)	**Approx. 46 lbs.**

Slope: Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the AWAFLEX membrane is required.

Deck: The deck should conform to TAMKO general requirements.

Insulation: The insulation should be installed according to the manufacturer's specification in the thickness required. The insulation should conform to TAMKO requirements. Polyisocyanurate and expanded polystyrene must have an overlay of a minimum 1/2 in. fiberboard, perlite, or fiberglass roof insulation.

Asphalt: The asphalt should be certified by the manufacturer to meet ASTM D-312, **Type III for slopes up to 1/4 in.** and **Type IV for slopes up to 3 in.**

Base Ply: Starting at the low point of the roof, install 1 layer of BASE-N-PLY beginning with a 1/2 m width, then a full 1 m width, side lapped 2 in. and end lapped 4 in. Apply at a right angle to the slope of the roof. Solid mop to the insulation with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft.

AWAFLEX: Starting at the low point of the roof, install 1 layer of TAMKO AWAFLEX granule surfaced sheet, side lapped 3 in. and end lapped 6 in. The AWAFLEX should be solidly adhered to the base ply (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

Flashing: The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

U.L. Requirements:
Contact TAMKO for information on U.L. systems requirements.

Caution: A product(s) in this specification contains crystalline silica and formaldehyde. Crystalline silica and formaldehyde have been classified as "known" human carcinogens by the International Agency for Research on Cancer (IARC) and the National Toxicology Program. A product(s) in this specification also contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emissions during roofing have been classified by IARC as a "probable human carcinogen". Oxidized asphalt also contains Polycyclic Aromatic Hydrocarbons some of which have been classified by IARC as known or probable human carcinogens. The physical nature of the product(s) in this specification may help limit any inhalation or dermal hazard during application and/or removal. However, physical forces such as sawing, grinding or drilling during demolition work and heating or burning may increase the inhalation or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.

Application of product(s) in this specification using "hot mopped" applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a "probable human carcinogen." During installation and removal of the product(s) in this specification, including "hot mopped" application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor

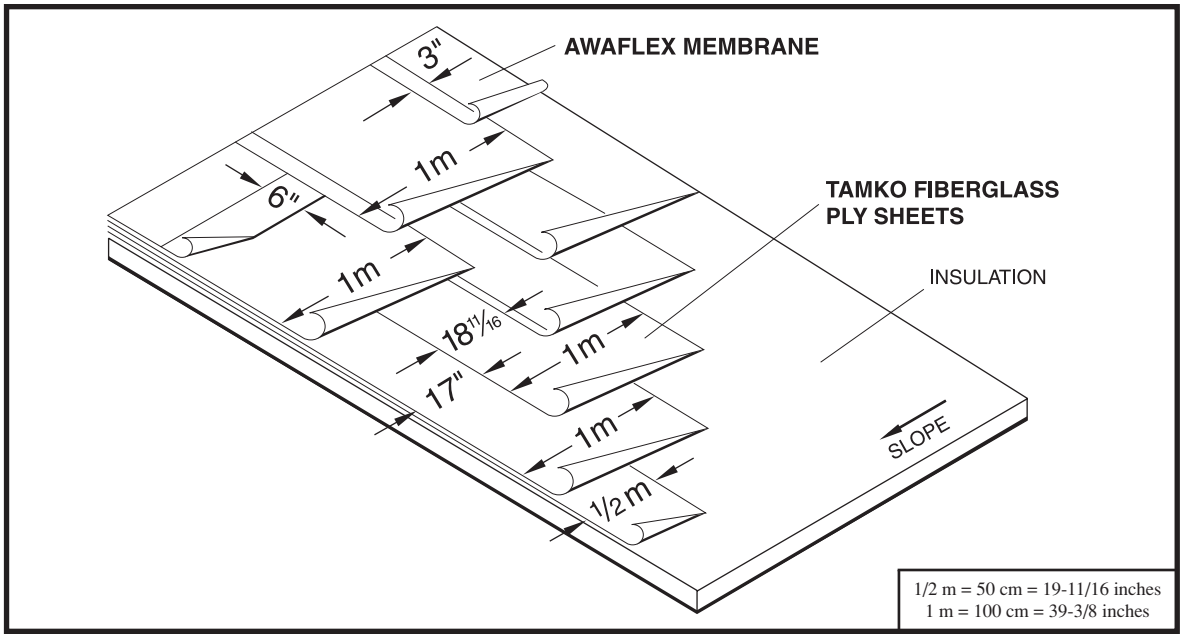
and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.

TAMKO BUILDING PRODUCTS

SPECIFICATION SUBMITTAL

1002 AWAFLEX

INSULATED DECKS



Material Requirements

TAMKO TAM-GLASS PREMIUM® or TAM-PLY IV® Fiberglass Ply Sheet	**2 plies**
TAMKO AWAFLEX® (Granule Surfaced)	**1 ply**
Asphalt (Per 100 sq. ft.)	**Approx. 69 lbs.**

Slope: Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the AWAFLEX membrane is required.

Deck: The deck should conform to TAMKO general requirements.

Insulation: The insulation should be installed according to the manufacturer's specification in the thickness required. The insulation should conform to TAMKO requirements. Polyisocyanurate and expanded polystyrene must have an overlay of a minimum 1/2 in. fiberboard, perlite, or fiberglass roof insulation.

Asphalt: The asphalt should be certified by the manufacturer to meet ASTM D-312, **Type III for slopes up to 1/4 in.** and **Type IV for slopes up to 3 in.**

Fiberglass Ply Sheet 2 Ply Installation: Over the insulation, install 2 plies of TAM-GLASS PREMIUM or TAM-PLY IV in specification asphalt. Starting from the low point of the roof, apply a 1/2 m width, then a full 1 m width. Follow with full 1 m widths, shingle fashion, lapping each ply 20-11/16 in. in such a manner so that at least 2 plies cover the insulation at any one point. Approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. should be used to embed each ply.

AWAFLEX: Starting at the low point of the roof, install 1 layer of TAMKO AWAFLEX granule surfaced sheet, side lapped 3 in. and end lapped 6 in. The AWAFLEX should be solidly adhered to the ply sheet (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

Flashing: The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

U.L. Requirements:
Contact TAMKO for information on U.L. systems requirements.

Caution: A product(s) in this specification contains crystalline silica and formaldehyde. Crystalline silica and formaldehyde have been classified as "known" human carcinogens by the International Agency for Research on Cancer (IARC) and the National Toxicology Program. A product(s) in this specification also contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emissions during roofing have been classified by IARC as a "probable human carcinogen". Oxidized asphalt also contains Polycyclic Aromatic Hydrocarbons some of which have been classified by IARC as known or probable human carcinogens. The physical nature of the product(s) in this specification may help limit any inhalation or dermal hazard during application and/or removal. However, physical forces such as sawing, grinding or drilling during demolition work and heating or burning may increase the inhalation or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.

Application of product(s) in this specification using "hot mopped" applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a "probable human

JP47787 04/12

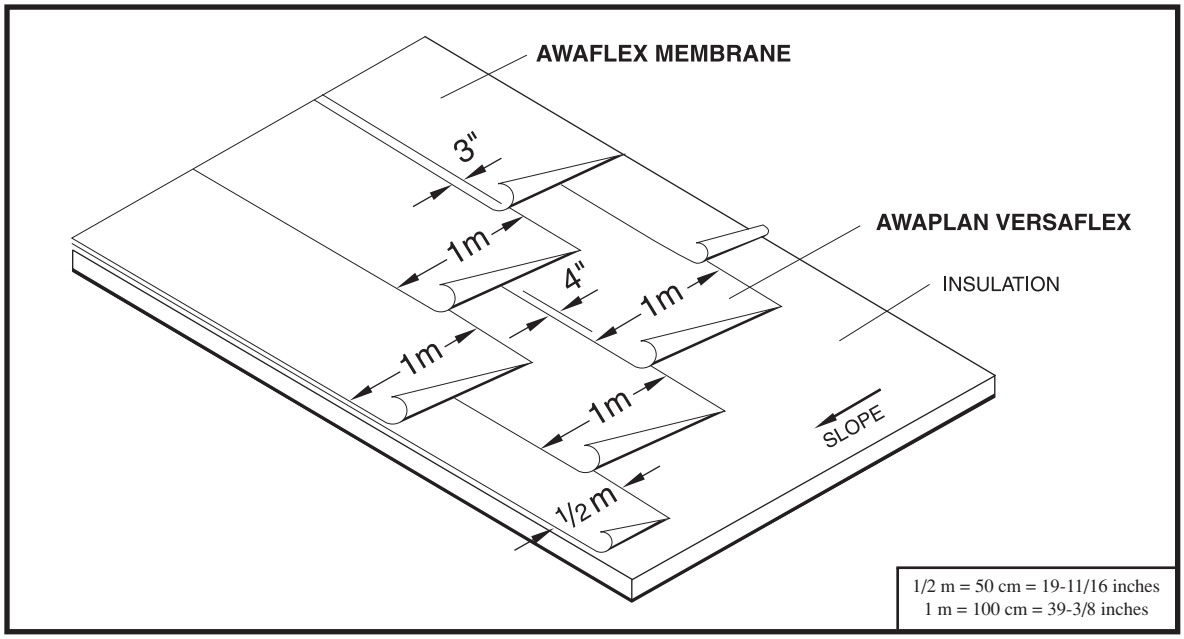
carcinogen." During installation and removal of the product(s) in this specification, including "hot mopped" application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.

TAMKO BUILDING PRODUCTS

SPECIFICATION SUBMITTAL

1004 AWAFLEX

INSULATED DECKS



Material Requirements

TAMKO AWAPLAN VERSAFLEX	**1 ply**
TAMKO AWAFLEX®	**1 ply**
Asphalt (Per 100 sq. ft.)	**Approx. 46 lbs.**

Slope: Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the AWAFLEX membrane is required.

Deck: The deck should conform to TAMKO general requirements.

Insulation: The insulation should be installed according to the manufacturer's specification in the thickness required. The insulation should conform to TAMKO requirements. Polyisocyanurate and expanded polystyrene must have an overlay of a minimum 1/2 in. fiberboard, perlite, or fiberglass roof insulation.

Asphalt: The asphalt should be certified by the manufacturer to meet ASTM D-312, **Type III for slopes up to 1/4 in.** and **Type IV for slopes up to 3 in.**

AWAPLAN VERSAFLEX: Over the insulation, install 1 ply of AWAPLAN VERSAFLEX in specification asphalt. Starting at the low point of the roof, apply the AWAPLAN VERSAFLEX beginning with a 1/2 m width, then a full 1 m width, side lapped 4 in. and end lapped 6 in. Apply at a right angle to the slope of the roof. The AWAPLAN VERSAFLEX should be solidly adhered to the insulation (pressed into the hot asphalt) with approximately 23 lb. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

AWAFLEX: Starting at the low point of the roof, install 1 layer of TAMKO AWAFLEX granule surfaced sheet, side lapped 3 in. and end lapped 6 in. The AWAFLEX should be solidly adhered to the base ply (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

Flashing: The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

U.L. Requirements:
Contact TAMKO for information on U.L. systems requirements.

Caution: A product(s) in this specification contains crystalline silica. Crystalline silica has been classified as a "known" human carcinogen by the International Agency for Research on Cancer (IARC) and the National Toxicology Program. A product(s) in this specification also contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emissions during roofing have been classified by IARC as a "probable human carcinogen". Oxidized asphalt also contains Polycyclic Aromatic Hydrocarbons some of which have been classified by IARC as known or probable human carcinogens. The physical nature of the product(s) in this specification may help limit any inhalation or dermal hazard during application and/or removal. However, physical forces such as sawing, grinding or drilling during demolition work and heating or burning may increase the inhalation or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.

Application of product(s) in this specification using "hot mopped" applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxi-

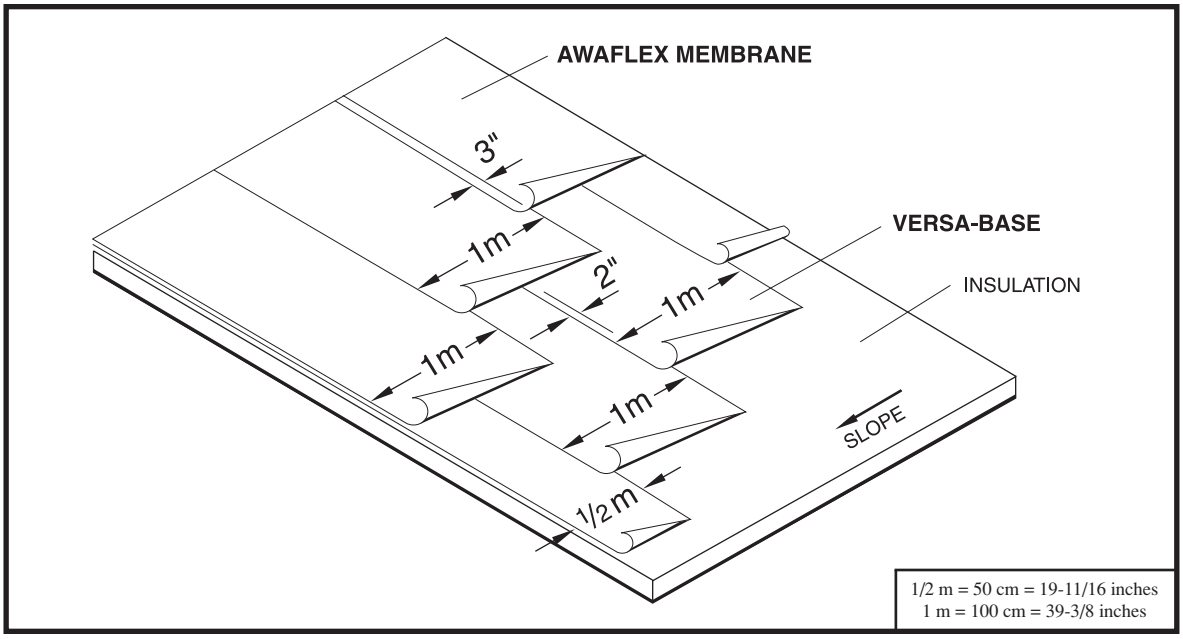
dized asphalt and its emissions during roofing as a "probable human carcinogen." During installation and removal of the product(s) in this specification, including "hot mopped" application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.

TAMKO BUILDING PRODUCTS

SPECIFICATION SUBMITTAL

1007 AWAFLEX

INSULATED DECKS



Material Requirements

TAMKO VERSABASE® Modified Asphalt Base Sheet	**1 ply**
TAMKO AWAFLEX® FR	**1 ply**
Asphalt (Per 100 sq. ft.)	**Approx. 46 lbs.**

Slope: Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the AWAFLEX membrane is required.

Deck: The deck should conform to TAMKO general requirements.

Insulation: The insulation should be installed according to the manufacturer's specification in the thickness required. The insulation should conform to TAMKO requirements. Polyisocyanurate and expanded polystyrene must have an overlay of a minimum 1/2 in. fiberboard, perlite, or fiberglass roof insulation.

Asphalt: The asphalt should be certified by the manufacturer to meet ASTM D-312, **Type III for slopes up to 1/4 in.** and **Type IV for slopes up to 3 in.**

VERSA-BASE Sheet: Starting at the low point of the roof, install 1 layer of TAMKO VERSA-BASE beginning with a 1/2 m width, then a full 1 m width, side lapped 2 in. and end lapped 4 in. Apply at a right angle to the slope of the roof. Solid mop to the insulation with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft.

AWAFLEX: Starting at the low point of the roof, install 1 layer of TAMKO AWAFLEX granule surfaced sheet, side lapped 3 in. and end lapped 6 in. The AWAFLEX should be solidly adhered to the ply sheet (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

Flashing: The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

U.L. Requirements:
Contact TAMKO for information on U.L. systems requirements.

Caution: A product(s) in this specification contains crystalline silica and formaldehyde. Crystalline silica and formaldehyde have been classified as "known" human carcinogens by the International Agency for Research on Cancer (IARC) and the National Toxicology Program. A product(s) in this specification also contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emissions during roofing have been classified by IARC as a "probable human carcinogen". Oxidized asphalt also contains Polycyclic Aromatic Hydrocarbons some of which have been classified by IARC as known or probable human carcinogens. The physical nature of the product(s) in this specification may help limit any inhalation or dermal hazard during application and/or removal. However, physical forces such as sawing, grinding or drilling during demolition work and heating or burning may increase the inhalation or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.

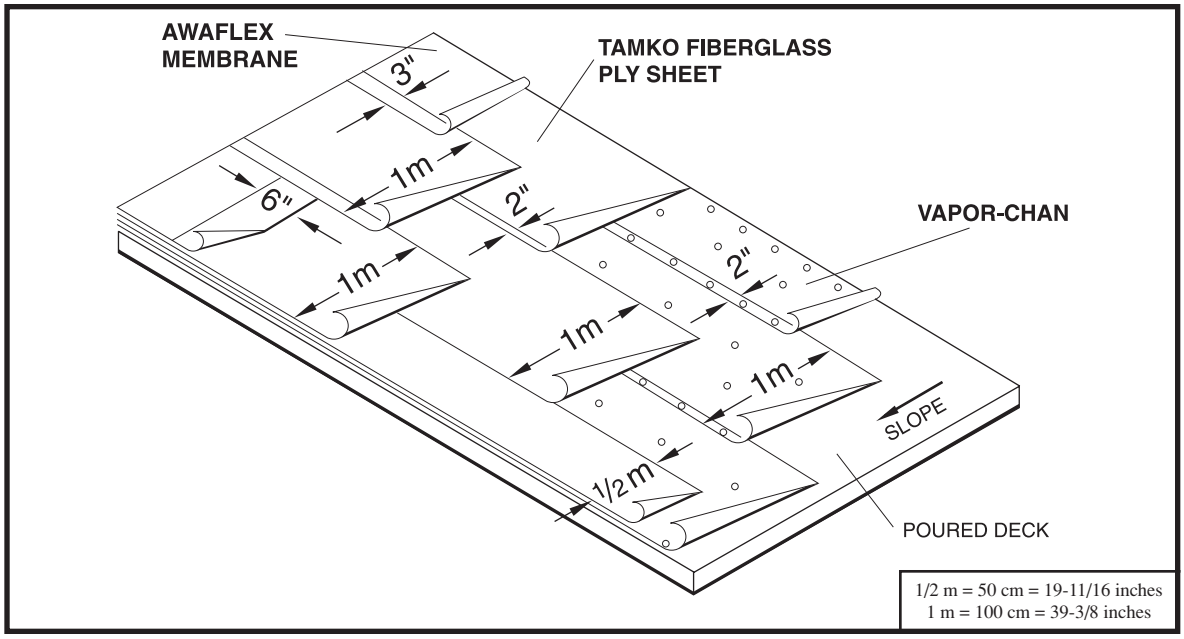
Application of product(s) in this specification using "hot mopped" applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a "probable human carcinogen." During installation and removal of the product(s) in this specification, including "hot mopped" application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.

TAMKO BUILDING PRODUCTS

SPECIFICATION SUBMITTAL

1013 AWAFLEX

NAILABLE DECKS (GYPSUM, PRECAST* AND LIGHTWEIGHT INSULATING CONCRETE)



Material Requirements

TAMKO VAPOR-CHAN® Fiberglass Venting Asphalt Base Sheet	**1 ply**
TAMKO TAM-PLY IV® Fiberglass Ply Sheet	**1 ply**
TAMKO AWAFLEX® (Granule Surfaced)	**1 ply**
Asphalt (Per 100 sq. ft.)	**Approx. 46 lbs.**
Clinch-type nails for base sheet (per 100 sq ft.)	**Approx. 100 nails**

Slope: Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the AWAFLEX membrane is required.

Deck: The deck should conform to TAMKO general requirements.

Asphalt: The asphalt should be certified by the manufacturer to meet ASTM D-312, **Type III for slopes up to 1/4 in.** and **Type IV for slopes up to 3 in.**

VAPOR-CHAN: Starting at the low point of the roof, install 1 ply of TAMKO VAPOR-CHAN, side lapped 2 in. and end lapped 4 in. Apply at a right angle to the slope of the roof. Nail the sheets along the lap at intervals of no more than 8 in. Stagger-nail down the center of the sheet on 16 in. centers along 2 lines located 12 in. from each edge of the base sheet. **For specific fastening patterns for wind uplift listings, contact the Technical Services Department.**

Fiberglass Ply Sheet: Starting at the low point of the roof, install a 1/2 m width, then a full 1 m width of TAM-PLY IV, side-lapped 2 in. and end lapped 4 in. Apply at a right angle to the slope of the roof. Solid mop to the base ply with approximately 23 lbs. (±15%) of specification asphalt.

AWAFLEX: Starting at the low point of the roof, install 1 layer of TAMKO AWAFLEX granule surfaced sheet, side lapped 3 in. and end lapped 6 in. The AWAFLEX should be solidly adhered to the ply sheet (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

Flashing: The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

U.L. Requirements:
Contact TAMKO for information on U.L. systems requirements.

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or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.

Application of product(s) in this specification using "hot mopped" applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a "probable human carcinogen." During installation and removal of the product(s) in this specification, including "hot mopped" application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.

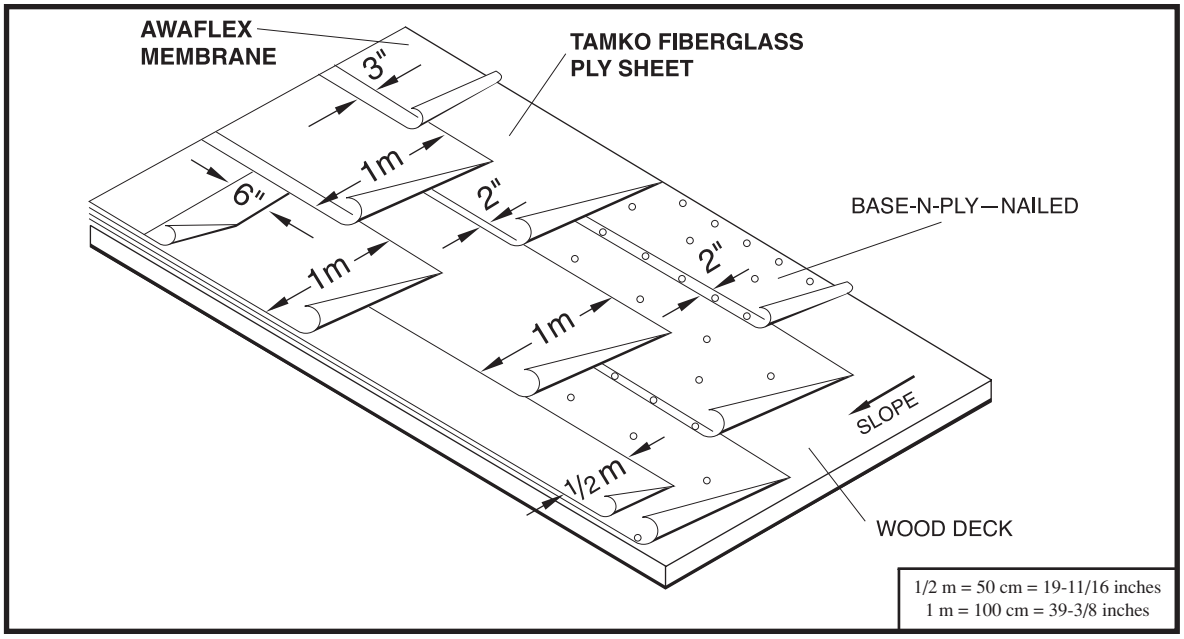
*Precast Concrete Decks: This specification may be utilized over a precast concrete deck when joints are taped and the VAPOR-CHAN is installed in spot moppings of specification asphalt on (not to exceed) 24 in. centers.

TAMKO BUILDING PRODUCTS

SPECIFICATION SUBMITTAL

1014 AWAFLEX

NAILABLE DECKS (WOOD)



Material Requirements

TAMKO BASE-N-PLY® Base Sheet	**1 ply**
TAMKO TAM-PLY IV® Fiberglass Ply Sheet	**1 ply**
TAMKO AWAFLEX® (Granule Surfaced)	**1 ply**
Asphalt (Per 100 sq. ft.)	**Approx. 46 lbs.**
Clinch-type nails for base sheet (per 100 sq ft.)	**Approx. 100 nails**

Slope: Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the AWAFLEX membrane is required.

Deck: The deck should conform to TAMKO general requirements.

Asphalt: The asphalt should be certified by the manufacturer to meet ASTM D-312, **Type III for slopes up to 1/4 in.** and **Type IV for slopes up to 3 in.**

Base Sheet: Starting at the low point of the roof, install 1 ply of TAMKO BASE-N-PLY, side lapped 2 in. and end lapped 4 in. Apply at a right angle to the slope of the roof. Nail the sheets along the lap at intervals of no more than 8 in. Stagger-nail on 16 in. centers along 2 lines located 12 in. from each edge of the base sheet. **For specific fastening patterns for wind uplift listings, contact the Technical Services Department.**

Fiberglass Ply Sheet: Starting at the low point of the roof, install a 1/2 m width, then a full 1 m width of TAM-PLY IV, side-lapped 2 in. and end lapped 4 in. Apply at a right angle to the slope of the roof. Solid mop to the base ply with approximately 23 lbs. (±15%) of specification asphalt.

AWAFLEX: Starting at the low point of the roof, install 1 layer of TAMKO AWAFLEX granule surfaced sheet, side lapped 3 in. and end lapped 6 in. The AWAFLEX should be solidly adhered to the ply sheet (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

Flashing: The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

U.L. Requirements:
Contact TAMKO for information on U.L. systems requirements.

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demolition work and heating or burning may increase the inhalation or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.

Application of product(s) in this specification using "hot mopped" applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a "probable human carcinogen." During installation and removal of the product(s) in this specification, including "hot mopped" application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.

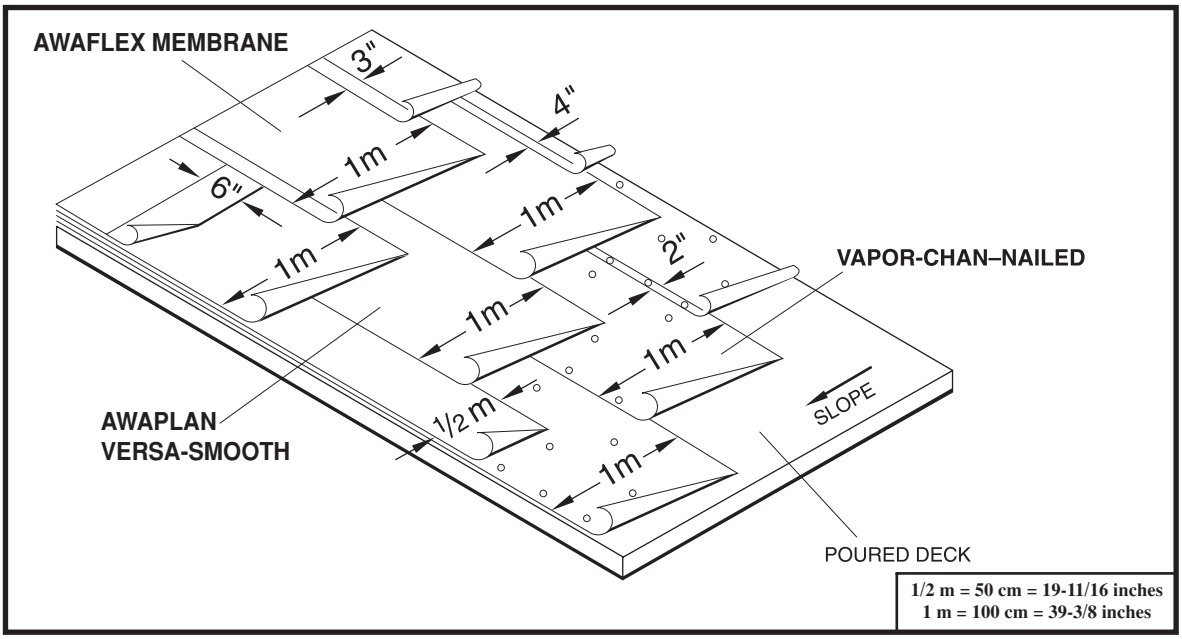
*Precast Concrete Decks: This specification may be utilized over a precast concrete deck when joints are taped and the VAPOR-CHAN is installed in spot moppings of specification asphalt on (not to exceed) 24 in. centers.

TAMKO BUILDING PRODUCTS

SPECIFICATION SUBMITTAL

1017 AWAFLEX

NAILABLE DECKS (GYPSUM, PRECAST* AND LIGHTWEIGHT INSULATING CONCRETE)



Material Requirements

TAMKO VAPOR-CHAN® Fiberglass Base Sheet	**1 ply**
TAMKO AWAPLAN VERSA-SMOOTH® Modified Base Sheet	**1 ply**
TAMKO AWAFLEX (Granule Surfaced)	**1 ply**
Asphalt (Per 100 sq. ft.)	**Approx. 46 lbs.**

Slope: Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the AWAFLEX is required.

Deck: The deck should conform to TAMKO general requirements.

Asphalt: The asphalt should be certified by the manufacturer to meet ASTM D-312, **Type III for slopes up to 1/4 in.** and **Type IV for slopes up to 3 in.**

VAPOR-CHAN: Starting at the low point of the roof, install 1 ply of TAMKO VAPOR-CHAN, side lapped 2 in. and end lapped 4 in. Apply at a right angle to the slope of the roof. Nail the sheets along the lap at intervals of no more than 8 in. Stagger-nail down the center of the sheet on 16 in. centers along 2 lines located 13 in. from each edge of the base sheet. **For specific fastening patterns for wind uplift listings, contact the Technical Services Department.**

AWAPLAN VERSA-SMOOTH: Starting at the low point of the roof, install 1 ply of TAMKO AWAPLAN VERSA-SMOOTH, beginnng with a 1/2 m width, then a full 1 m width, side lapped 4 in. and end lapped 6 in. Apply at a right angle to the slope of the roof. The AWAPLAN VERSA-SMOOTH should be solidly adhered to the base sheet (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

Alternately, the AWAPLAN VERSA-SMOOTH can be heat welded and should be solidly adhered to the base sheet by sufficiently heating the back side with a torch at the juncture of the base sheet and the AWAPLAN VERSA-SMOOTH roll to form a bead of melted asphalt as the AWAPLAN VERSA-SMOOTH is rolled out.

AWAFLEX: Starting at the low point of the roof, install 1 layer of TAMKO AWAFLEX granule surfaced sheet, side lapped 3 in. and end lapped 6 in. The AWAFLEX should be solidly adhered to the ply sheet (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

Flashing: The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

U.L.Requirements:
Contact TAMKO for information on U.L. systems requirements.

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demolition work and heating or burning may increase the inhalation or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.

Application of product(s) in this specification using "torch applied" or "hot mopped" applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a "probable human carcinogen." During installation and removal of the product(s) in this specification, including "torch applied" or "hot mopped" application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.

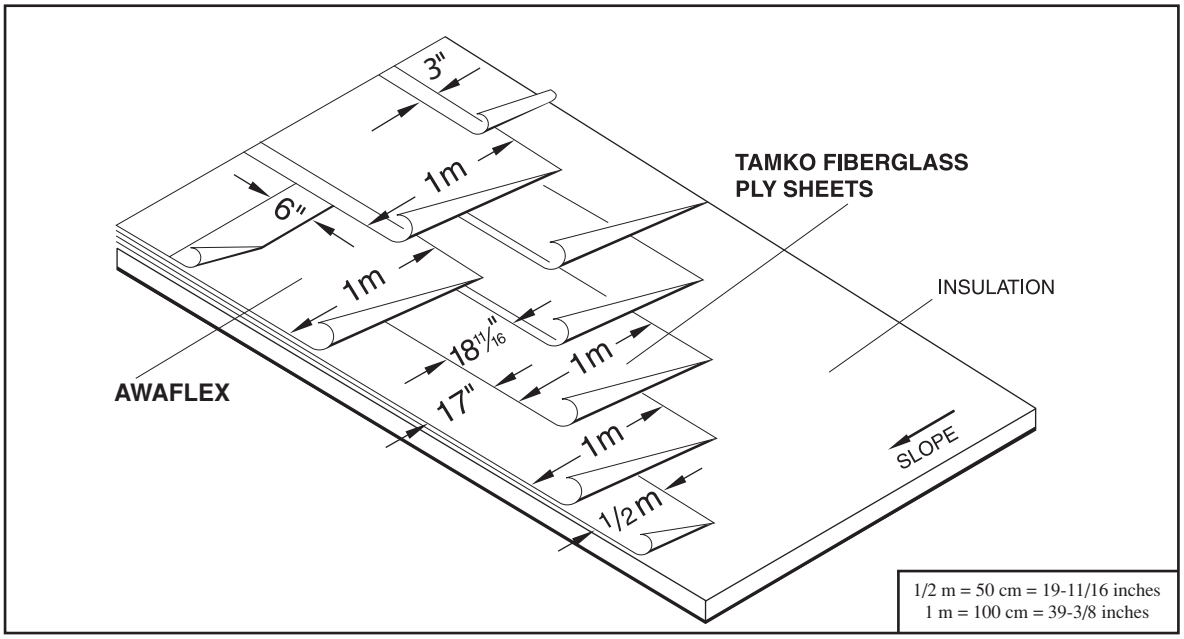
*Precast Concrete Decks: This specification may be utilized over a precast concrete deck when joints are taped and the VAPOR-CHAN is installed in spot moppings of specification asphalt on (not to exceed) 24 in. centers.

TAMKO BUILDING PRODUCTS

SPECIFICATION SUBMITTAL

1002 M³ AWAFLEX

INSULATED DECKS



Material Requirements

TAMKO TAM-GLASS PREMIUM® or TAM-PLY IV ® Fiberglass Ply Sheet	**2 plies**
TAMKO AWAFLEX (Granule Surfaced)	**1 ply**
Asphalt (Per 100 sq. ft.)	**Approx. 46 lbs.**
M³ Adhesive (Per 100 sq. ft.)	**Approx. 1-1/2 to 2-1/2 gal.**

Slope: Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the AWAFLEX is required.

Deck: The deck should conform to TAMKO general requirements.

Insulation: The insulation should be installed according to the manufacturer's specification in the thickness required. The insulation should conform to TAMKO requirements. Polyisocyanurate and expanded polystyrene must have an overlay of a minimum 1/2 in. fiberboard, perlite, or fiberglass roof insulation.

Asphalt: The asphalt should be certified by the manufacturer to meet ASTM D-312, **Type III for slopes up to 1/4 in.** and **Type IV for slopes up to 3 in.**

Adhesive: The adhesive **must** be TAM-PRO® M³ Adhesive.

Fiberglass Ply Sheet 2 Ply Installation: Over the insulation, install 2 plies of TAM-GLASS PREMIUM or TAM-PLY IV inspecification asphalt. Starting from the low point of the roof, apply a 1/2 m width, then a full 1 m width. Follow with full 1 m widths, shingle fashion, lapping each ply 20-11/16 in. in such a manner so that at least 2 plies cover the insulation at any one point. Approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. should be used to embed each ply.

AWAFLEX: Starting at the low point of the roof, install 1 layer of TAMKO AWAFLEX granule surfaced sheet, side lapped 3 in. and end lapped 6 in. The AWAFLEX should be solidly adhered to the ply sheet with an application of M³ Adhesive at a rate not to exceed 1-1/2 to 2 gal. per sq. for squeegee application and 1-1/2 to 2-1/2 gal. per sq. for spray application. Side laps and end laps shall be set in M³ Adhesive. Care should be taken to prevent damage to the system from water or wind prior to the cured adhesive sealing the laps.

Using a 3/16" serrated edge squeegee will achieve an application rate of 1-1/2 gal. per sq. For spray application, the M³ Adhesive must be a minimum of 100°F at the spray tip. M³ Adhesive should not be heated above 180°F.

Caution should be used when exposing M³ Adhesive to an open flame.

Flashing: The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

U.L. Requirements:
Contact TAMKO for information on U.L. systems requirements.

Caution: A product(s) in this specification contains crystalline silica and formaldehyde. Crystalline silica and formaldehyde have been classified as "known" human carcinogens by the International Agency for Research on Cancer (IARC) and the National Toxicology Program. A product(s) in this specification also contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emissions during roofing have been classified by IARC as a "probable human carcinogen". Oxidized asphalt also contains Polycyclic Aromatic Hydrocarbons some of which have been classified by

IARC as known or probable human carcinogens. The physical nature of the product(s) in this specification may help limit any inhalation or dermal hazard during application and/or removal. However, physical forces such as sawing, grinding or drilling during demolition work and heating or burning may increase the inhalation or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.

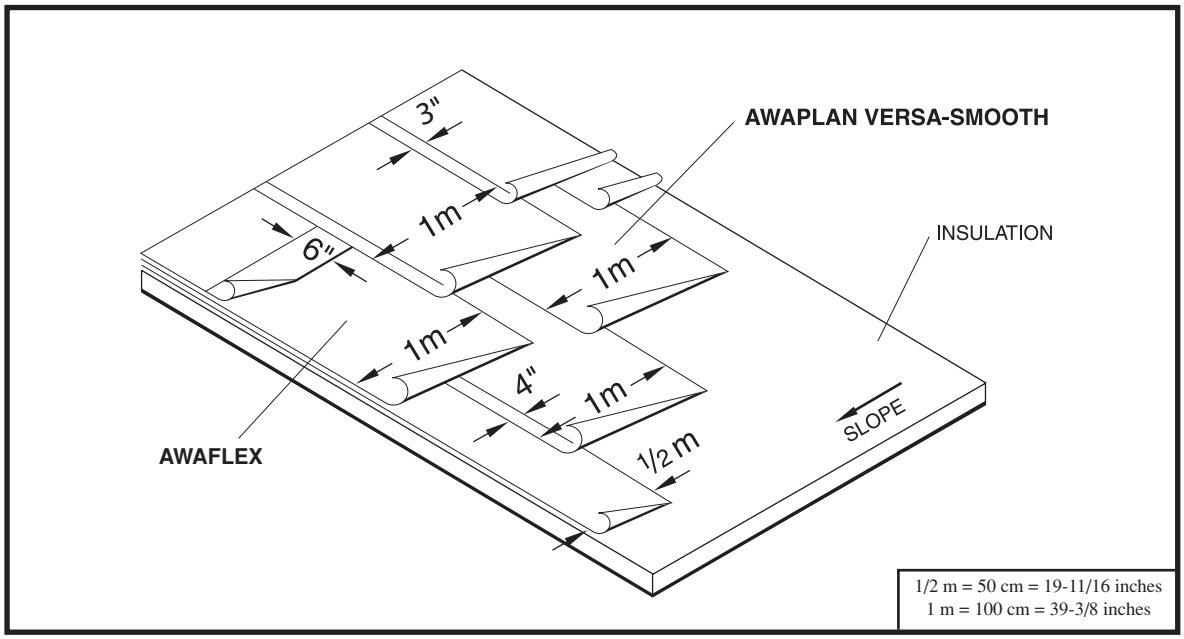
Application of product(s) in this specification using "hot mopped" applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a "probable human carcinogen." During installation and removal of the product(s) in this specification, including "hot mopped" application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.

TAMKO BUILDING PRODUCTS

SPECIFICATION SUBMITTAL

1003 M³ AWAFLEX

INSULATED DECKS



Material Requirements

TAMKO AWAPLAN VERSA-SMOOTH	**1 ply**
TAMKO AWAFLEX (Granule Surfaced)	**1 ply**
M³ Adhesive (Per 100 sq. ft.)	**Approx. 1-1/2 to 2-1/2 gal.**

Slope: Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the AWAFLEX is required.

Deck: The deck should conform to TAMKO general requirements.

Insulation: The insulation should be installed according to the manufacturer's specification in the thickness required. The insulation should conform to TAMKO requirements. Polyisocyanurate and expanded polystyrene must have an overlay of a minimum 1/2 in. fiberboard, perlite, or fiberglass roof insulation.

Adhesive: The adhesive **must** be TAM-PRO® M³ Adhesive.

AWAPLAN VERSA-SMOOTH: Starting at the low point of the roof, install 1 ply of TAMKO AWAPLAN VERSA-SMOOTH, beginning with a 1/2 m width, then a full 1 m width, side lapped 4 in. and end lapped 6 in. Apply at a right angle to the slope of the roof. The AWAPLAN VERSA-SMOOTH should be solidly adhered to the insulation with an application of M³ Adhesive at a rate not to exceed 1-1/2 to 2 gal per sq. for squeegee application and 1-1/2 to 2-1/2 gal. per sq. for spray application. Side laps and end laps shall be heat welded together.

Alternately, the AWAPLAN VERSA-SMOOTH may be solidly adhered to the insulation (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

AWAFLEX: Starting at the low point of the roof, install 1 layer of TAMKO AWAFLEX granule surfaced sheet, side lapped 3 in. and end lapped 6 in. The AWAFLEX should be solidly adhered to the base ply with an application of M³ Adhesive at a rate not to exceed 1-1/2 to 2 gal. per sq. for squeegee application and 1-1/2 to 2-1/2 gal. per sq. for spray application. Side laps and end laps shall be set in M³ Adhesive. Care should be taken to prevent damage to the system from water or wind prior to the cured adhesive sealing the laps.

Using a 3/16" serrated edge squeegee will achieve an application rate of 1-1/2 gal. per sq. For spray application, the M³ Adhesive must be a minimum of 100°F at the spray tip. M³ Adhesive should not be heated above 180°F.

Caution should be used when exposing M³ Adhesive to an open flame.

Flashing: The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

U.L. Requirements:
Contact TAMKO for information on U.L. systems requirements.

Caution: A product(s) in this specification contains crystalline silica. Crystalline silica has been classified as a "known" human carcinogen by the International Agency for Research on Cancer (IARC) and the National Toxicology Program. A product(s) in this specification also contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emissions during roofing have been classified by IARC as a "probable human carcinogen".

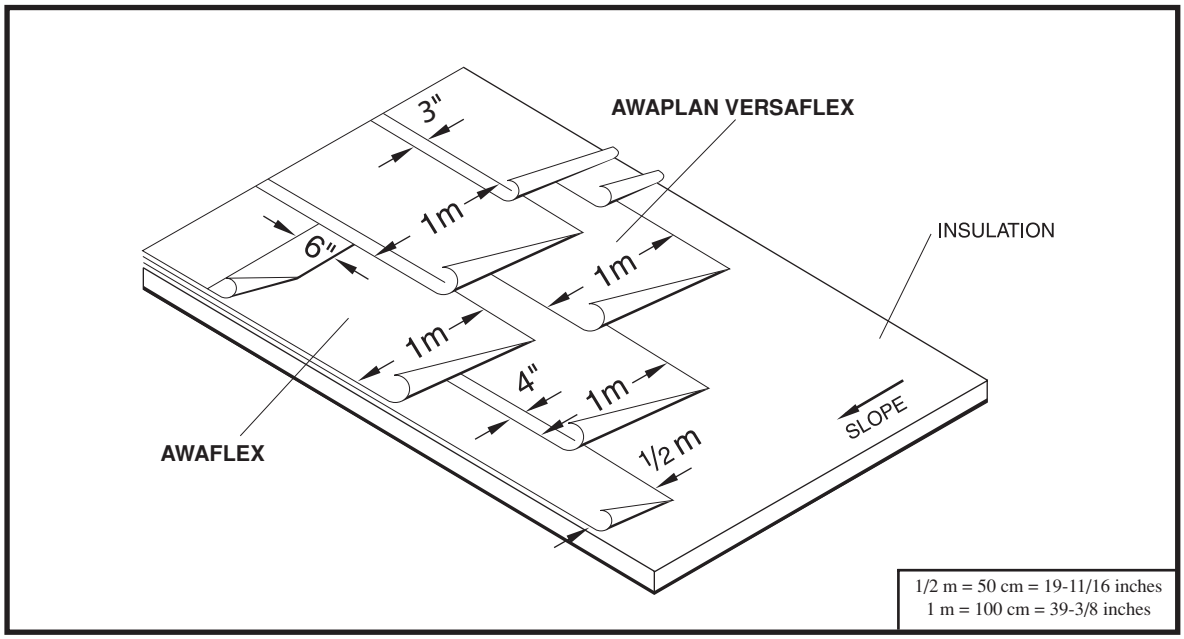
Oxidized asphalt also contains Polycyclic Aromatic Hydrocarbons some of which have been classified by IARC as known or probable human carcinogens. The physical nature of the product(s) in this specification may help limit any inhalation or dermal hazard during application and/or removal. However, physical forces such as sawing, grinding or drilling during demolition work and heating or burning may increase the inhalation or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.

Application of product(s) in this specification using "torch applied" or "hot mopped" applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a "probable human carcinogen." During installation and removal of the product(s) in this specification, including "torch applied" or "hot mopped" application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.

SPECIFICATION SUBMITTAL

1004 M³ AWAFLEX

INSULATED DECKS



Material Requirements

TAMKO AWAPLAN VERSAFLEX	**1 ply**
TAMKO AWAFLEX (Granule Surfaced)	**1 ply**
M³ Adhesive (Per 100 sq. ft.)	**Approx. 1-1/2 to 2-1/2 gal.**

Slope: Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the AWAFLEX is required.

Deck: The deck should conform to TAMKO general requirements.

Insulation: The insulation should be installed according to the manufacturer's specification in the thickness required. The insulation should conform to TAMKO requirements. Polyisocyanurate and expanded polystyrene must have an overlay of a minimum 1/2 in. fiberboard, perlite, or fiberglass roof insulation.

Adhesive: The adhesive **must** be TAM-PRO® M³ Adhesive.

AWAPLAN VERSAFLEX: Starting at the low point of the roof, install 1 ply of TAMKO AWAPLAN VERSAFLEX, beginning with a 1/2 m width, then a full 1 m width, side lapped 4 in. and end lapped 6 in. Apply at a right angle to the slope of the roof. The AWAPLAN VERSAFLEX should be solidly adhered to the insulation with an application of M³ Adhesive at a rate not to exceed 1-1/2 to 2 gal per sq. for squeegee application and 1-1/2 to 2-1/2 gal. per sq. for spray application. Side laps and end laps shall be set in M³ Adhesive. Care should be taken to prevent damage to the system from water or wind prior to the cured adhesive sealing the laps.

Alternately, the AWAPLAN VERSAFLEX may be solidly adhered to the insulation (pressed into the hot asphalt) with approximately 23 lbs. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400° F at the point of application and mopped no more than 4 ft. in front of the roll.

AWAFLEX: Starting at the low point of the roof, install 1 layer of TAMKO AWAFLEX granule surfaced sheet, side lapped 3 in. and end lapped 6 in. The AWAFLEX should be solidly adhered to the base ply with an application of M³ Adhesive at a rate not to exceed 1-1/2 to 2 gal. per sq. for squeegee application and 1-1/2 to 2-1/2 gal. per sq. for spray application. Side laps and end laps shall be set in M³ Adhesive. Care should be taken to prevent damage to the system from water or wind prior to the cured adhesive sealing the laps.

Using a 3/16" serrated edge squeegee will achieve an application rate of 1-1/2 gal. per sq. For spray application, the M³ Adhesive must be a minimum of 100°F at the spray tip. M³ Adhesive should not be heated above 180°F.

Caution should be used when exposing M³ Adhesive to an open flame.

Flashing: The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

U.L. Requirements:
Contact TAMKO for information on U.L. systems requirements.

Caution: A product(s) in this specification contains crystalline silica. Crystalline silica has been classified as a "known" human carcinogen by the International Agency for Research on Cancer (IARC) and the National Toxicology Program. A product(s) in this specification also contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emissions during roofing

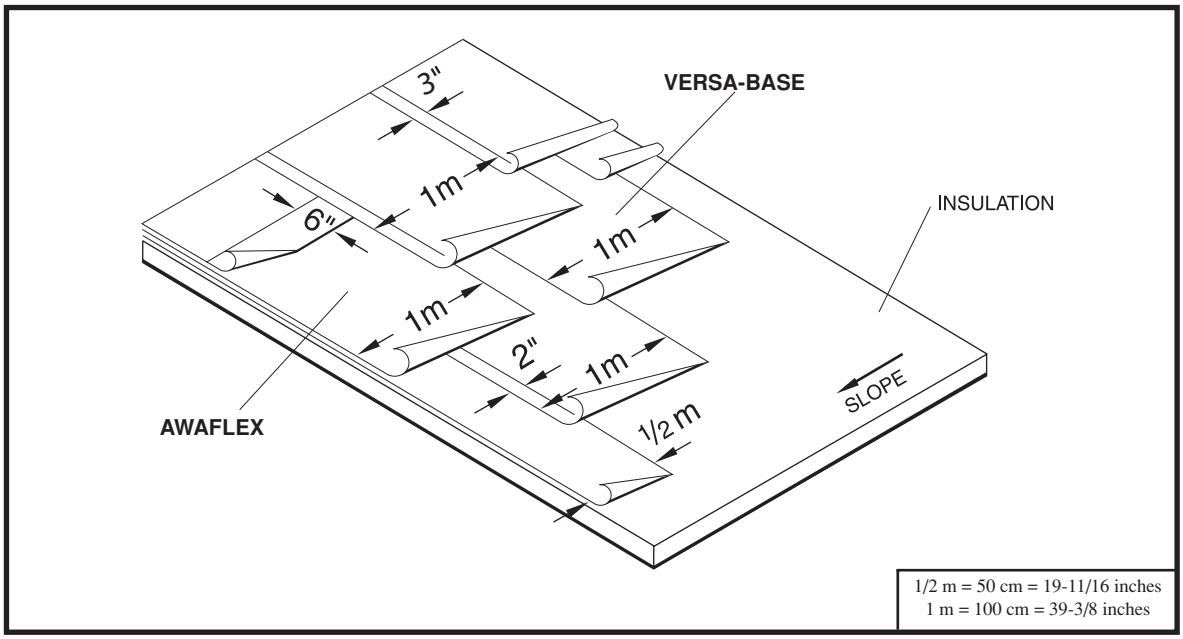
have been classified by IARC as a "probable human carcinogen". Oxidized asphalt also contains Polycyclic Aromatic Hydrocarbons some of which have been classified by IARC as known or probable human carcinogens. The physical nature of the product(s) in this specification may help limit any inhalation or dermal hazard during application and/or removal. However, physical forces such as sawing, grinding or drilling during demolition work and heating or burning may increase the inhalation or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.

Application of product(s) in this specification using "hot mopped" applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a "probable human carcinogen." During installation and removal of the product(s) in this specification, including "hot mopped" application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.

SPECIFICATION SUBMITTAL

1007 M³ AWAFLEX

INSULATED DECKS



Material Requirements	
TAMKO VERSA-BASE®	**1 ply**
TAMKO AWAFLEX FR (Granule Surfaced)	**1 ply**
M³ Adhesive (Per 100 sq. ft.)	**Approx. 1-1/2 to 2-1/2 gal.**

Slope: Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the AWAFLEX is required.

Deck: The deck should conform to TAMKO general requirements.

Insulation: The insulation should be installed according to the manufacturer's specification in the thickness required. The insulation should conform to TAMKO requirements. Polyisocyanurate and expanded polystyrene must have an overlay of a minimum 1/2 in. fiberboard, perlite, or fiberglass roof insulation.

Adhesive: The adhesive **must** be TAM-PRO® M³ Adhesive.

VERSA-BASE: Starting at the low point of the roof, install 1 ply of TAMKO VERSA-BASE, beginning with a 1/2 m width, then a full 1 m width, side lapped 2 in. and end lapped 4 in. Apply at a right angle to the slope of the roof. The VERSA-BASE should be solidly adhered to the insulation with an application of M³ Adhesive at a rate not to exceed 1-1/2 to 2 gal. per sq. for squeegee application and 1-1/2 to 2-1/2 gal. per sq. for spray application. Side laps and end laps shall be set in M³ Adhesive. Care should be taken to prevent damage to the system from water or wind prior to the cured adhesive sealing the laps.

Alternately, the VERSA-BASE may be solidly adhered to the insulation (pressed into hot asphalt) with approximately 23 bls. (±15%) of specification asphalt per 100 sq. ft. The asphalt should be above 400°F at the point of application and mopped no more than 4 ft. in front of the roll.

AWAFLEX: Starting at the low point of the roof, install 1 layer of TAMKO AWAFLEX granule surfaced sheet, side lapped 3 in. and end lapped 6 in. The AWAFLEX should be solidly adhered to the base ply with an application of M³ Adhesive at a rate not to exceed 1-1/2 to 2 gal. per sq. for squeegee application and 1-1/2 to 2-1/2 gal. per sq. for spray application. Side laps and end laps shall be set in M³ Adhesive. Care should be taken to prevent damage to the system from water or wind prior to the cured adhesive sealing the laps.

Using a 3/16" serrated edge squeegee will achieve an application rate of 1-1/2 gal. per sq. For spray application, the M³ Adhesive must be a minimum of 100°F at the spray tip. M³ Adhesive should not be heated above 180°F.

Caution should be used when exposing M³ Adhesive to an open flame.

Flashing: The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

U.L. Requirements:
Contact TAMKO for information on U.L. systems requirements.

Caution: A product(s) in this specification contains crystalline silica and formaldehyde. Crystalline silica and formaldehyde have been classified as "known" human carcinogens by the International Agency for Research on Cancer (IARC) and the National Toxicology Program. A product(s) in this specification also contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emissions during roofing have been classified by IARC as a "probable

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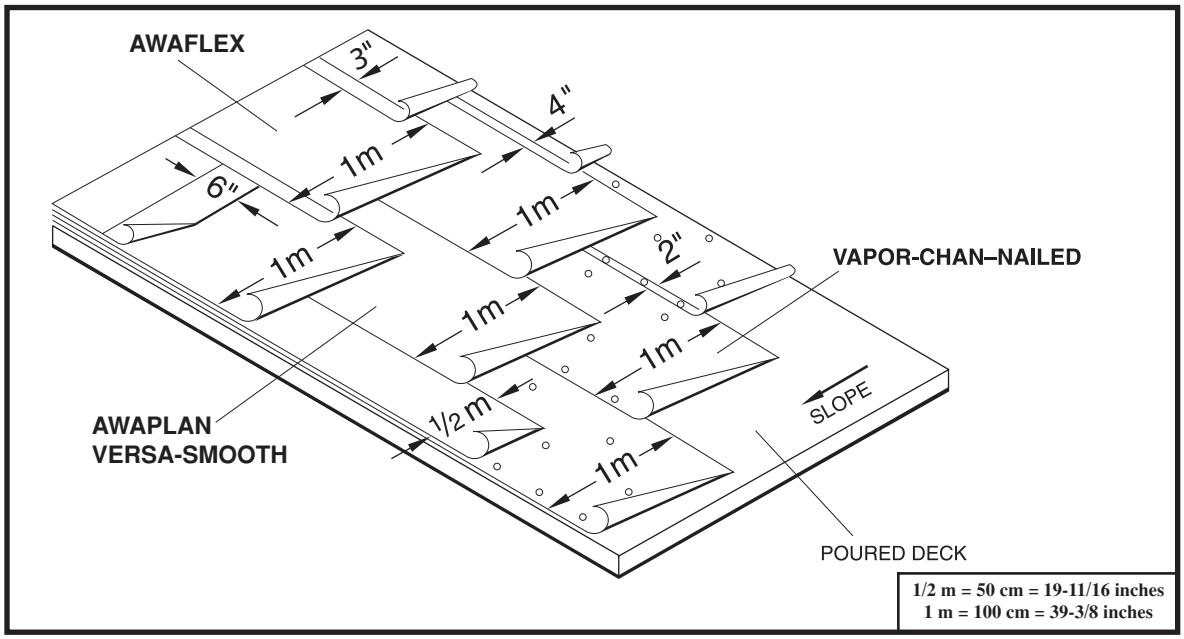
TAMKO BUILDING PRODUCTS

SPECIFICATION SUBMITTAL

1017 M³ AWAFLEX M3

NAILABLE DECKS (GYPSUM AND LIGHTWEIGHT INSULATING CONCRETE)



Material Requirements

TAMKO VAPOR-CHAN® Fiberglass Venting Asphalt Base Sheet	**1 ply**
TAMKO AWAPLAN VERSA-SMOOTH Modified Base Sheet	**1 ply**
TAMKO AWAFLEX (Granule Surfaced)	**1 ply**
M³ Adhesive (Per 100 sq. ft.)	**Approx. 1-1/2 to 2-1/2 gal.**

Slope: Positive drainage up to 3 in. per linear ft. **For slopes above 3/4 in. per linear ft.,** fastening of the AWAPFLEX is required.

Deck: The deck should conform to TAMKO general requirements.

Asphalt: The asphalt should be certified by the manufacturer to meet ASTM D-312, **Type III for slopes up to 1/4 in.** and **Type IV for slopes up to 3 in.**

VAPOR-CHAN: Starting at the low point of the roof, install 1 ply of TAMKO VAPOR-CHAN, side lapped 2 in. and end lapped 4 in. Apply at a right angle to the slope of the roof. Nail the sheets along the lap at intervals of no more than 8 in. Stagger-nail down the center of the sheet on 16 in. centers along 2 lines located 13 in. from each edge of the base sheet. **For specific fastening patterns for wind uplift listings, contact the Technical Services Department.**

AWAPLAN VERSA-SMOOTH: Starting at the low point of the roof, install 1 ply of TAMKO AWAPLAN VERSA-SMOOTH, beginning with a 1/2 m width, then a full 1 m width, side lapped 4 in. and end lapped 6 in. Apply at a right angle to the slope of the roof. The AWAPLAN VERSA-SMOOTH should be solidly adhered to the insulation with an application of M³ Adhesive at a rate not to exceed 1-1/2 to 2 gal per sq. for squeegee application and 1-1/2 to 2-1/2 gal. per sq. for spray application. Side laps and end laps shall be heat welded together.

Alternately, the AWAPLAN VERSA-SMOOTH can be heat welded and should be solidly adhered to the base sheet by sufficiently heating the back side with a torch at the juncture of the base sheet and the AWAPLAN VERSA-SMOOTH roll to form a bead of melted asphalt as the AWAPLAN VERSA-SMOOTH is rolled out.

AWAFLEX FR: Starting at the low point of the roof, install 1 layer of TAMKO AWAFLEX FR granule surfaced sheet, side lapped 3 in. and end lapped 6 in. The AWAFLEX FR should be solidly adhered to the base ply with an application of M³ Adhesive at a rate not to exceed 1-1/2 to 2 gal. per sq. for squeegee application and 1-1/2 to 2-1/2 gal. per sq. for spray application. Side laps and end laps shall be set in M³ Adhesive. Care should be taken to prevent damage to the system from water or wind prior to the cured adhesive sealing the laps.

Using a 3/16" serrated edge squeegee will achieve an application rate of 1-1/2 gal. per sq. For spray application, the M³ Adhesive must be a minimum of 100°F at the spray tip. M³ Adhesive should not be heated above 180°F.

Caution should be used when exposing M³ Adhesive to an open flame.

Flashing: The flashing material **must** be a TAMKO polyester reinforced modified asphalt flashing material.

U.L. Requirements:
Contact TAMKO for information on U.L. systems requirements.

Caution: A product(s) in this specification contains crystalline silica and formaldehyde. Crystalline silica and formaldehyde have been classified as "known" human carcinogens by the International Agency for Research on Cancer (IARC) and the National Toxicology Program. A product(s) in this specification also contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emis-

sions during roofing have been classified by IARC as a "probable human carcinogen". Oxidized asphalt also contains Polycyclic Aromatic Hydrocarbons some of which have been classified by IARC as known or probable human carcinogens. The physical nature of the product(s) in this specification may help limit any inhalation or dermal hazard during application and/or removal. However, physical forces such as sawing, grinding or drilling during demolition work and heating or burning may increase the inhalation or dermal exposure hazard of the product(s) in this specification. Take precautions to prevent breathing and contact with skin.

Application of product(s) in this specification using "torch applied" applications may expose workers and others in the work area to oxidized asphalt and its emissions. The International Agency for Research on Cancer has classified occupational exposures to oxidized asphalt and its emissions during roofing as a "probable human carcinogen." During installation and removal of the product(s) in this specification, including "torch applied" application, workers must take precautions to assure adequate ventilation and use effective personal protective equipment to prevent exposures to dusts, fumes, vapors and mists. It is the responsibility of the contractor and workers to protect themselves and others in the work area from exposure to oxidized asphalt and its emissions when applying the product(s) in this specification.