



# UNDERWRITER LABORATORIES INC.

## CODE APPROVALS

### **SINGLE PLY MEMBRANE SYSTEMS**

#### **CLASS A - FULLY ADHERED**

##### **1. Deck: C-15/32 • Incline: 3**

Insulation: Polyisocyanurate, glass fiber/foam composite, phenolic, perlite/foam composite, perlite or glass fiber, 3/4 to 4 in., any combination, hot mopped or mechanically fastened to deck.

Ply or Base Sheet (optional): One or more layers Type G1 ply sheet, Type G2 base sheet, Type 15 felt or base sheet, hot mopped or mechanically fastened.

Membrane: "Hyload 150 E" or "Hyload 250 E" (modified EIP coal tar), hot mopped in place or "Hyload Sam", "Hyload WS 75", "Hyload WS 90", "Kwik Ply White" or "Hypsam" selfadhering roofing membrane.

Surfacing: Gravel.

##### **2. Deck: C-15/32 • Incline: 3**

Base Sheet: One layer Type G2 base sheet, nailed in place.

Membrane: "Hyload 150 E" or "Hyload 250 E" (modified EIP coal tar), hot mopped in place or "Hyload Sam", "Hyload WS 75", "Hyload WS 90", "Kwik Ply White" or "Hypsam" selfadhering roofing membrane.

Surfacing: Gravel.

##### **3. Deck: NC • Incline: 3**

Ply Sheet: One layer Type G1 or G2 glass fiber ply sheet, hot mopped in place.

Membrane: "Hyload 150 E" or "Hyload 250 E" (modified EIP coal tar), hot mopped in place or "Hyload Sam", "Hyload WS 75", "Hyload WS 90", "Kwik Ply White" or "Hypsam" selfadhering roofing membrane.

Surfacing: Gravel.

##### **4. Deck: NC • Incline: 1/4**

Insulation: One layer glass fiber/foam composite, phenolic, isocyanurate, perlite/foam composite, perlite, glass fiber or wood fiberboard, 3/4 to 4 in., any combination, hot mopped or mechanically attached.

Ply or Base Sheet (optional): One layer Type G1 ply sheet, Type G2 base sheet, Type 15 felt or base sheet, hot mopped or mechanically fastened.

Membrane: "Hyload SAM", "Hyload WS 90" or "Hypsam" self-adhering roofing membrane or "Hyload 150 E" or "Hyload 250 E" (modified EIP coal tar), hot mopped in place.

Surfacing (optional): Gravel.

##### **5. Deck: NC • Incline: 1/4**

Insulation: One layer isocyanurate or glass fiber phenolic covered with one layer 1/2 in. wood fiberboard, perlite or fiberglass recover board; or one layer wood fiberboard, perlite, fiberglass, perlite/foam composite with perlite side up, 3/4 to 4 in., any combination, hot mopped or mechanically fastened in place.

Ply or Base Sheet: One layer Type G1, G2 or 15, hot mopped or mechanically fastened.

Membrane: "Kwik Ply White", "Alpsam" or "Alpsam WS".

Surfacing (optional): Gravel.

##### **6. Deck: C-15/32 • Incline: 1/4**

Insulation (optional): One layer isocyanurate or glass fiber phenolic covered with one layer 1/2 in. wood fiberboard, perlite or fiberglass recover board, or one layer wood fiberboard, perlite fiberglass, perlite/foam composite with perlite side up, any thickness, any combination, hot mopped or mechanically fastened in place.

Barrier Board: Min 1/2 in. G-P Gypsum Dens-Deck® or gypsum board.

Ply or Base Sheet (optional): One layer Type G1, G2 or 15, hot mopped or mechanically fastened.

Membrane: "Kwik Ply White", "Alpsam", "Alpsam WS", "Hyload SAM", "Hyload WS 75", "Hyload WS 90", "Hyload 150 E", "Hyload 250 E" or "Kwik Ply Black".



**7. Deck:C-15/32 • Incline:1/4**

Barrier Board: 1/4 in. (min) G-P Gypsum Dens-Deck® or 1/2 in. (min) gypsum board with all joints staggered 6 in. (min) from the plywood joints.

Membrane (one or two layers): “Kwik Ply White”, “Alpsam”, “Alpsam WS”, “Hyload WS 75”, “Hyload WS 90”, “Hyload 150 E”, “Hyload 250 E”, or “Kwik Ply Black”.

**8. Deck:NC • Incline:1-1/2**

Insulation: Polyisocyanurate, wood fiber, fiberglass and perlite, any thickness, any combination.

Barrier Board: “Hyload HyGlass Recover Board” (1/8 in. or 3/16 in.) or Hal Industries “PERMA BOARD”, mechanically fastened.

**9. Deck: NC • Incline: 1**

Insulation: Polyisocyanurate, any thickness.

Base Sheet: “HyBase SAM”, self-adhered.

Membrane: “Hyload WS 75” or “Hyload WS 90”, self-adhered.

**10. Deck:C-15/32 • Incline: 1/4**

Insulation (optional): Polyisocyanurate, wood fiber, fiberglass and perlite, any thickness, any combination, covered with “Hyload HyGlass Recover Board” (1/8 in. or 3/16 in.) or Hal Industries “PERMA-BOARD”, mechanically fastened. Barrier Board: 1/4 in. (min) G-P Gypsum Dens-Deck® mechanically fastened with all joints staggered 6 in. min from the plywood joints.

Base Sheet: “HyBase SAM”, self-adhered.

Membrane: “Hyload WS 75” or “Hyload WS 90”, self-adhered.

**11. Deck:NC • Incline:2**

Insulation: Atlas Roofing “ACFoam III”, any thickness

Base Sheet: “HyBase SAM”, self-adhered.

Membrane: “Hyload WS 75” or “Hyload WS 90”, self-adhered.

**12. Deck:C-15/32 • Incline:2**

Insulation: Atlas Roofing “ACFoam III”, any thickness.

Barrier Board: 1/4 in. (min) G-P Gypsum Dens-Deck®, mechanically fastened with all joints staggered 6 in. min from the plywood joints.

Base Sheet: “HyBase SAM”, self-adhered.

Membrane: “Hyload WS 75” or “Hyload WS 90”, self-adhered.

**CLASS B - FULLY ADHERED**

**1. Deck:C-15/32 • Incline:1/2**

Insulation (optional): One layer perlite of glass fiber, 3/4 in. thick min. mechanically fastened. Barrier Board: Min 1/2 in. G-P Gypsum Dens-Deck® or gypsum board.

Ply or Base Sheet: Two layers Type G2, hot mopped or mechanically fastened.

Membrane: “Hyload 150 E” or “Hyload 250 E” (modified EIP coal tar), hot mopped in place or “Hyload Sam”, “Hyload WS 75”, “Hyload WS 90”, or “Kwik Ply Black” self-adhering roofing membrane.

**CLASS C - FULLY ADHERED**

**1. Deck:C-15/32 • Incline:1/4**

Ply Sheet :One or two layers Type G1 or G2 glass fiber ply sheet, mechanically fastened.

Membrane: One layer “Hyload SAM”, “Hyload WS 75”, “Hyload WS 90” or “Kwik Ply Black” self-adhering roofing membrane.

To achieve a Class A combustible deck rating for an existing noncombustible deck system, a min 1/4 in. G-P Gypsum Dens-Deck® must first be applied to the plywood deck.



**MAINTENANCE AND REPAIR SYSTEMS**

These systems are intended for use over existing Class A, B or C systems (existing gravel may be removed).

**CLASS A**

**1. Deck:NC • Incline:1/2**

Insulation :One layer isocyanurate, glass fiber/foam composite, perlite/foam composite, perlite, glass fiber phenolic or wood fiberboard, 3/4 to 4 in., hot mopped or mechanically fastened in place.

Ply or Base Sheet (optional): One layer Type G1 ply sheet, Type G2 base sheet, Type 15 felt or base sheet, hot mopped to insulation.

Membrane: "Hyload 150 E" or "Hyload 250 E" (modified EIP coal tar), hot mopped in place or "Hyload SAM", "Hyload WS 75", "Hyload WS 90", or "Kwik Ply Black" self-adhering roofing membrane.

**2. Deck:C-15/32 • Incline:1/2**

Ply or Base Sheet: Two or three layers Type G2, hot mopped or mechanically fastened.

Membrane: "Hyload 150 E" or "Hyload 250 E" (modified EIP coal tar), hot mopped in place or "Hyload SAM", "Hyload WS 75", "Hyload WS 90", or "Kwik Ply Black" self-adhering roofing membrane.

**CLASS A, B, OR C**

**1. Deck:C-15/32 • Incline:1/2**

Existing Roof System:Class A, B or C, mineral surfaced cap sheet to retain existing Classification, covered with:

Membrane: "Kwik Ply Black", "Hyload SAM:", "Hyload WS 75", "Hyload WS 90", "Kwik Ply White", "Alpsam" or "Alpsam WS", self-adhering roofing membrane.