

## **SOURCE: JANUARY 2003 FMRC CD ROM - SECTION 3, PAGES 94-104**

**ES Products Inc 280 Franklin St Bristol RI 02809**

### **LISTINGS FOR FM-90, FM-75, FM-60, FM-45, NAIL-TITE TYPE "A" AND NAIL-TITE TYPE "R" IN POURED GYPSUM ROOFDECKS**

Roof Covers: Min 3-ply Approved organic or glass fiber felt built-up roof cover or Approved modified bitumen roof cover Approved for use with the base sheet or insulation.

Deck: Gypsum (reroof only). Sound existing poured gypsum roof decks constructed with gypsum products Approved at the time of roof deck construction.

Coating: See roof cover listing

Laps: See roof cover listing for roof cover laps, below for base sheet side laps

Application: Secured to mechanically fastened base sheet or insulation or insulation secured with hot asphalt to mechanically fastened base sheet per roof cover listing

Base Sheets: Black Armor Glass Fiber Base Sheet, Black Armor Vented Glass Fiber Base Sheet, Black Armor Glass Fiber Felt, Black Armor Premium Glass Fiber Felt, Millennium Base Sheet, Prebase Base Sheet, Firestone MB Base, Firestone SBS Base Sheet, Firestone SBS Premium Base Sheet, Firestone APP 160, Firestone SBS Smooth, GAFGLAS #75, Stratavent Eliminator Venting Base Sheet (Nailable), GAFGLAS Ply 4, GAFGLAS Ply 6, GAFGLAS Mineral Surface Cap Sheet (granules down), All Weather/Empire, GS Flex-I-Glas Base, GS Flex-I-Glas FR, GS Poly SMS, Garland HPR Glasbase, Garland HPR Premium Glasbase, Garland Tribase, DynaBase, GlasBase, Glasply Premier, Glasply IV, Johns Manville APP Base Sheet, Nordflex Duo Ply FR Base, Nord G-2 Base, Perma Ply No. 28, Perma Ply-R, Ventsulation, Glass Fiber Base Sheet, Organic Base Sheet, #502 Premium Fiberglass Mineral Cap Sheet (granules down), #515 Fiberglass Standard Base Sheet, #501 Premium 1 Fiberglass SBS Base Sheet, #605 Panoply SBS Base Sheet, Derbibase, Glass Ply IV, Glass Base, Irex 30, Irex HT, Parabase, Parabase Plus, Sopra-G, Sopraglass 100, Glass-Base, Vapor-Chan, Versa Base, BURmastic Glass Ply-28#, BURmastic Glass Ply, BURmastic Composite Ply, Eagle Base Ultra, Ultra Cap (granules down), Intec Modified Base Plus, Intec Modified Base 190P, Flex Base 30, Flex Base 60, Permavent, Ultra Base, Multi-Ply Glass, Multi-Ply Glass CL, Performance Ply, Weather Ply Base and PIKA Ply SS-2.

Hail Rating: See roof cover listing

ASTM E 108: See roof cover listing

**Construction #1:** Base sheet secured to an existing Approved poured gypsum deck as follows:

**Construction #1a:** FM-45, FM-60, Nail-Tite Type A or Nail-Tite Type R base ply fasteners installed 4 in. (100 mm) o.c. along center of min 4 in. (102 mm) wide base sheet side laps. Roof cover, Approved for use with base sheet, installed per the roof cover listing. Meets Class 1-60.

**Construction #1b:** FM-45, FM-60, Nail-Tite Type A or Nail-Tite Type R base ply fasteners installed 9 in. (230 mm) o.c. along center of min 2 in. (51 mm) wide base sheet side laps and 18 in. (455 mm) o.c. staggered in two rows equally spaced between base sheet side laps. Roof cover, Approved for use with base sheet, installed per the roof cover listing. Meets Class 1-60 with FM-45 or FM-60 base ply fasteners. Meets Class 1-90 with FM-45 or FM-60 base ply fasteners and Perma Ply-R base sheet. Meets Class 1-90 with Nail-Tite Type A or Nail-Tite Type R base ply fasteners.

**Construction #1c:** FM-45 or FM-60 base ply fasteners and FM-30 discs FM-75 or FM-90 assembled base ply fasteners installed 9 in. (230 mm) o.c. along center of min 2 in. (52 mm) wide base sheet side laps and 18 in. (455 mm) o.c. staggered in two rows equally spaced between base sheet side laps. Roof cover, Approved for use with base sheet, installed per the roof cover listing. Meets Class 1-90.

**Construction #1d:** FM-45 or FM-60 base ply fasteners and FM-30 discs FM-75 or FM-90 assembled base ply fasteners installed 7-1/2 in. (190 mm) o.c. along center of min 4 in. (102 mm) wide base sheet side laps and in one row centered between base sheet side laps. Roof cover, Approved for use with base sheet, installed per the roof cover listing. Meets Class 1-90.

**Construction #2:** Base sheet secured to deck per Construction #1a, #1b, #1c, #1d above. Min 1/2 in. (13 mm) thick Armor Board High Density Fiberboard, ESGARD HIGH-STRENGTH 1/2" 6-side Asphalt Coated High-Density Roof Board, ESGARD HIGH-STRENGTH 1/2" 1-side Asphalt Coated

High-Density Roof Board, ESGARD 1/2", GAFTEMP High Density Fiberboard, High Density Roof Fiberboard, Fiber Base HD1, Fiber Base HD6, Structodek, GAFTEMP Permalite Recover Board, Permalite Recover Board, or Retro-Fit Board, min 3/4 in. (19 mm) thick Celotherm, ConPerl, Permalite, GAFTEMP Permalite, GAFTEMP Perlite or Fesco Board min 1 in. (25 mm) thick Armor Board Regular Fiberboard, ESGARD 1", ESGARD HIGH-STRENGTH 1" High-Density Roof Board, GAFTEMP Fiberboard, Huebert Fiberboard or Kop-R Wood Fiber, min 1.5 in. (38 mm) thick Armor R Plus, Armor R Plus Tapered, Millox-P, Millox, Nail-Line, Pyrox, White Line, ACFoam-II, ACFoam-II Tapered, ACFoam Composite, Hy-Therm AP Roof Insulation, Hy-Therm(a) AP Roof Insulation, Hy-Therm COMPOSITE, Hy-Therm(a) COMPOSITE Roof Insulation, Hy-Therm TAPERED, Hy-Therm TAPERED Roof Insulation, Hy-Tec RB, Polycon-Posite, Iso 95+ GL, Iso 95+ Composite, Iso 95+ Composite Plus, GAFTEMP Composite, GAFTEMP Isotherm RA, GAFTEMP Tapered Isotherm RA, Kop-R, Kop-R Composite, Kop-R (WC), Kop-R (WII), Kop-R (WII) Tapered, Pyrox, ENRGY 3, ValuTherm, ENRGY 3 Plus, PSI-25, Tapered PSI-25, HCS 2000, Foamglas Board, Thermal Tec, Thermal Tec Tapered, Thermarroof Composite, Multi-Max, Fesco Foam, DuraBoard, UltraGard, UltraGard Tapered, Trisotech G2, Trisotech GF, Trisotech Pyrox, USIso, USIso Tapered, USIso/Perlite Composite or min 2 in. (51 mm) thick Arcor FM secured to the base sheet with hot asphalt at 25 lb/sq (1.2 kg/sq.mtr.). Roof cover, Approved for use with the insulation, installed per the roof cover listing. Meets Class 1-60/1-90 per base sheet securement.