

Johns Manville's Title 24 / ENERGY STAR® / LEED

Also UL Class A and FM Class 1-90 Approved

PVC

Johns Manville white JM PVC with Elvaloy® membranes including JM PVC 50, JM PVC 60, JM PVC 80 as well as JM PVC Fleece-Backed 50 and JM PVC Fleece-Backed 60 single ply systems, either mechanically attached or fully adhered.

TPO

Johns Manville white JM TPO 45 or JM TPO 60 single ply systems either mechanically attached or fully adhered.

BUR

GlasKap® CR white mineral surfaced, white acrylic coated fiber glass cap sheet.
(Excludes ENERGY STAR.)

GlasKap® mineral surfaced cap sheet coated with a 20 mil (0.02") thickness of one coat of TopGard® Base and one coat of TopGard® 5000. (Excludes ENERGY STAR.)

Two or three plies of GlasPly® Premier or GlasPly® IV topped with one ply of PermaPly® 28 and coated with a 20 mil (0.02") thickness of one coat of TopGard® Base and one coat of TopGard® 5000.

SBS

Johns Manville SBS fire-rated systems incorporating a mineral-surfaced, fire-rated cap sheet coated with a 20 mil (0.02") thickness of one coat of TopGard® Base and one coat of TopGard® 5000.

Johns Manville SBS fire-rated systems incorporating SBS base/ply sheets and DynaLastic™ 250S FR, coated with a 20 mil (0.02") thickness of one coat of TopGard® Base and one coat of TopGard® 5000.

How Products Tested

Product	Reflectivity	Emissivity (ASTM E 408)	Emissivity (ASTM C 1371)	SRI* (ASTM 1980-01)
JM PVC	0.86	0.94	0.86	111
JM TPO	0.78	0.90	0.87	96
GlasKap CR	0.70	0.75	0.75	93
TopGard 4000	0.83	0.94	0.88	104
TopGard 5000	0.83	0.95	0.88	104

* LEED's Solar Reflective Index

Comparison Chart Showing Various "Cool" Roof Program Requirements

Program	Requirement	Reflectivity	Emissivity	SRI***
Title 24 (CRRC)	Mandatory	0.70	0.75	N/A
ENERGY STAR	Voluntary*	0.65	0.75**	N/A
LEED	Voluntary*	See SRI	See SRI	78

CRRC lists product emissivity information according to ASTM C 1371.

LEED accepts products tested for emissivity according to ASTM E 1980.

Results may vary between test methods.

** Although voluntary, some local and state authorities are requiring designers to adhere to these guidelines for specific building types (i.e., government or state funded projects).*

*** ENERGY STAR emissivity standard not in effect until later 2006.*

**** SRI is determined by using the reflectivity values, emissivity values, and the steady state temperature equations defined in ASTM E 1980-01.*



Johns Manville

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