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RESEARCH REPORT: RR 25271 (CSI # 07550)

Expires:	July 1, 2010
Issued Date:	July 1, 2009
Code:	2008 LABC

Attn: Beth McSorley (973) 872-4421

GENERAL APPROVAL - GAF Ruberoid Mop Smooth, Ruberoid Mop Plus and Ruberoid Mop Granule Roof Coverings over combustible or noncombustible roof decks.

DETAILS

GAF Ruberoid Mop Smooth, Ruberoid Mop Plus and Ruberoid Mop Granule Roof Covering Systems are approved Class "A" or "B" roof coverings over combustible or noncombustible roof decks.

The approval is subject to the following conditions:

- 1. The GAF Roof Covering Systems are approved when installed in accordance with the manufacturer's instructions and the attached details.
- 2. The foam plastic insulation utilized in the roof assembly shall be approved by a current City of Los Angeles research report.
- 3. The interior of the building shall be separated from the foam plastic insulation by a thermal barrier with an index of 15. Gypsum board with a minimum thickness of $\frac{1}{2}$ provides a thermal barrier with an index of 15.

Re: GAF Ruberoid Mop Smooth, Ruberoid Mop Plus and Ruberoid Mop Granule Roof Coverings

DISCUSSION

The report is in compliance with 2008 LABC.

This approval is based on tests.

This general approval of an equivalent alternate to the Code is only valid where an engineer and/or inspector of this Department has determined that all conditions of this approval have been met in the project in which it is to be used.

Addressee to whom this Research Report is issued is responsible for providing copies of it, complete with any attachments indicated, to architects, engineers and builders using items approved herein in design or construction which must be approved by Department of Building and Safety Engineers and Inspectors.

YEUAN CHOU, Chief Engineering Research Section 201 N. Figueroa Street, Room 880 Los Angeles, CA 90012 Phone – 213-202-9812 Fax - 213-202-9942

YC:elcm RR25271/msw3 R07-02-2009 4C/2603/1505

Attachment: 4 Pages of Details.

Re: GAF Ruberoid Mop Smooth, Ruberoid Mop Plus and Ruberoid Mop Granule Roof Coverings

<u>UL CLASSIFICATION FOR RUBEROID MOP SMOOTH</u> <u>CLASS A</u>

- Deck: C-15/32 Incline: 2
 Insulation: One or more layers perlite, glass fiber, isocyanurate, urethane, perlite/isocyanurate composite, perlite/urethane composite, phenolic, 1.0 inch minimum (off-set from plywood joints 6 in.).

 Base Sheet: One or more layers of Type G1, G2 or G3.
 Membrane: One or more layers "Ruberoid Mop Plus", "Ruberoid Mop Granule", "Ruberoid Mop Smooth".
 Cap Sheet: "GAFGLAS Mineral Surfaced Cap Sheet" hot mopped.
- 2. Deck: C15/32 Incline: 2 Insulation (Optional): One or more layers perlite, wood fiber, glass fiber, isocyanurate, perlite/isocyanurate composite, perlite/urethane composite, wood fiber/isocyanurate composite, phenolic, any thickness.
 Base Sheet: Two or more layers of Type G2 or G3.
 Ply Sheet (Optional): One or more layers of Type G1.
 Membrane: One or more layers "Ruberoid Mop Plus", "Ruberoid Mop Granule", "Ruberoid Mop Smooth".
 Cap Sheet: "GAFGLAS Mineral Surfaced Cap Sheet" hot mopped.
- 3. Deck: NC Incline: ½ Insulation (Optional): One or more layers perlite, wood fiber, glass fiber, isocyanurate, urethane, perlite/isocyanurate composite, perlite/urethane composite, wood fiber/isocyanurate composite, phenolic, any thickness. Base Sheet (Optional): One or more layers of Type G1, G2 or G3. Membrane: One or more layers "Ruberoid Mop Plus", "Ruberoid Mop Granule", "Ruberoid Mop Smooth".
 Surfacing: Gravel, 400 lbs./sq., loose laid or applied in a flood coat of hot roofing asphalt.
- 4. Deck: NC Incline: ¹/₂
 Base Sheet (Optional): One or more layers of Type G1, G2, or G3. Membrane: One or more layers "Ruberoid Mop Smooth". Coating: Karnak No. 97, 1¹/₂ 3 gal./sq.

- Re: GAF Ruberoid Mop Smooth, Ruberoid Mop Plus and Ruberoid Mop Granule Roof Coverings
- 5. Deck: NC Incline: ¹/₄
 Insulation (Optional): One or more layers perlite, wood fiber, glass fiber, any thickness.
 Base Sheet (Optional): One or more layers of Type G1, G2 or G3.
 Membrane: One or more layers "Ruberoid Mop Smooth".
 Coating: Karnak No. 97, 1¹/₂ 3 gal./sq.
- 6. Deck: C-15/32 Incline: ¹/₂
 Insulation: One or more layers perlite, glass fiber, isocyanurate composite, perlite/urethane composite, phenolic, 1¹/₂ inch minimum thickness (off-set from plywood joints 6 in.).
 Base Sheet: One or more layers of Type G2 or G3.
 Ply Sheet (Optional): One or more layers of Type G1.
 Membrane: "Ruberoid Mop Smooth".
 Surfacing: Karnak No. 97, 1¹/₂ 3 gal./sq.

7. Deck: C-15/32 Incline: ¹/₂
Insulation: One or more layers perlite, glass fiber, ³/₄ inch minimum isocyanurate, urethane, perlite isocyanurate composite, perlite/urethane composite, phenolic, 1¹/₂ inch minimum.
Base Sheet (Optional): One or more layers of Type G1, G2 or G3.
Membrane: One or more layers "Ruberoid Mop Plus", "Ruberoid Mop Granule", "Ruberoid Mop Smooth".
Surfacing: Gravel.

- 8. Deck: C15/32 Incline: ¹/₂
 Insulation (Optional): One or more layers perlite, wood fiber, glass fiber, isocyanurate, urethane, perlite/isocyanurate composite, perlite/urethane composite, wood fiber/isocyanurate composite, phenolic.
 Base Sheet: Two or more layers of Type G2 or G3.
 Ply Sheet (Optional): One or more layers of Type G1.
 Membrane: One or more layers "Ruberoid Mop Smooth".
 Surfacing: Karnak 97, 1¹/₂ 3 gal./sq. or gravel.
- 9. Deck: NC Incline: ¹/₂
 Insulation (Optional): One or more layers perlite, glass fiber, ³/₄ inch minimum isocyanurate, urethane, perlite/isocyanurate composite, perlite/urethane composite, phenolic, 1¹/₂ inch minimum.
 Base Sheet (Optional): One or more layers of Type G1, G2 or G3.
 Membrane: One or more layers 'Ruberoid Mop Smooth".
 Surfacing: "AL MB Aluminum Roof Coating at 1 2 gal./sq.

- Re: GAF Ruberoid Mop Smooth, Ruberoid Mop Plus and Ruberoid Mop Granule Roof Coverings
- 10. Deck: C15/32 Incline: ¹/₂
 Insulation (Optional): Perlite, fiber glass, isocyanurate, urethane, perlite/isocyanurate composite or phenolic, off-set 6 inches from joints.
 Base Sheet: One or more layers of Type G2 or G3 base sheet, hot mopped or mechanically fastened.
 Ply Sheet (Optional): One or more layers of Type G1, hot mopped in place.
 Membrane: One layer of "Ruberoid Mop Smooth".
 Membrane: One layer of "Ruberoid Granule Mop 170FR" or "Ruberoid Mop FR".
- 11. **Deck:** NC **Incline:** 1

Insulation (Optional): Perlite, fiber glass, wood fiber, isocyanurate, urethane, perlite/isocyanurate composite or phenolic.

Base Sheet (Optional): One or more layers of Type G2 or G3 base sheet, hot mopped or mechanically fastened.

Ply Sheet (Optional): One or more layers of Type G1, hot mopped in place. **Membrane:** One layer of "Ruberoid Smooth Mop".

Membrane: One layer of "Ruberoid Mop 170 FR" or "Ruberoid Mop FR".

Re: GAF Ruberoid Mop Smooth, Ruberoid Mop Plus and Ruberoid Mop Granule Roof Coverings

CLASS B - FULLY ADHERED

- Deck: C-15/32 Incline: 3¹/₂
 Insulation (Optional): One or more layers perlite, wood fiber, glass fiber, isocyanurate, urethane, perlite/isocyanurate composite, perlite/urethane composite, wood fiber/isocyanurate composite, phenolic, any thickness.
 Base Sheet: Two or more layers of Type G1, G2 or G3.
 Membrane: One or more layers "Ruberoid Mop Plus", "Ruberoid Mop Granule", "Ruberoid Mop Smooth".
 Cap Sheet: 'GAFGLAS Mineral Surfaced Cap Sheet", hot mopped.
- Deck: C-15/32 Incline: ¹/₂
 Insulation (Optional): One or more layers perlite, wood fiber, glass fiber, isocyanurate, urethane, perlite/isocyanurate composite, perlite/urethane composite, wood fiber/isocyanurate composite phenolic, any thickness.
 Base Sheet: Two or more layers of GAF G1, G2 or G3 base sheet, hot mopped or mechanically fastened in place.
 Membrane: "Ruberoid Mop Smooth".
 Surfacing: Karnak No. 97 applied at nom 1½ gal./sq.
- Deck: C-15/32 Incline: ¹/₂
 Insulation (Optional): One or more layers perlite, wood fiber, glass fiber, isocyanurate, urethane, perlite/isocyanurate composite, perlite/urethane composite, wood fiber/isocyanurate composite, phenolic, any thickness.
 Base Sheet: One or more layers of Type G2 or G3.
 Ply Sheet (Optional): One or more layers of Type G1.
 Membrane: One or more layers "Ruberoid Mop Smooth".
 Surfacing: Karnak No. 97 applied at nom 1¹/₂ 3 gal. sq.