



## CLASSIFICATION AND APPLICATION OF CUSHION GUMS AND REPAIR MATERIALS

### PURPOSE

To clarify selection and usage of cushion gums and repair materials used in the retreading and repairing industry.

Use of the materials depends on many factors:

- cure rate of material
- use in the tire
- type and temperature of curing process
- type of equipment used
- shelf life

### CURE RATE CLASSIFICATION

MATERIALS	DEFINITION	APPLICATION	TYPICAL CURE RATE RANGE
REGULAR CURE	The slowest heat curing rubber compound used in tire repairing and retreading. Usually tested at 260°F (127°C).	Used in curing systems above 280°F (138°C).	25 minutes or greater at 260°F (127°C).
FAST CURE	Rubber compound which cures at a faster rate than retread rubber and is tested at 260°F (127°C).	Used in curing systems 250°F (121°C) and above; or for reduced cure times in 280°F (138°C) and above curing systems. (May have a shorter shelf life than regular cure.)	10-25 minutes at 260°F (127°C).
LOW TEMPERATURE CURE	Rubber compound which cures at a faster rate than fast cure rubber and is tested at 260°F (127°C) or 200°F (93°C).	Used in curing systems below 250°F (121°C). (May have a shorter shelf life than fast cure.)	75-175 minutes at 200°F (95°C).
CHEMICAL CURE	Cures at room temperature, by chemical agents without application of heat by an outside source.	Used for room temperature curing without a heat source	Room temperature

Note: Refer to rubber material manufacturers for specific cure times, temperatures, and applications.

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**CUSHION AND REPAIR MATERIALS GUMS** – All the below may be available in regular, fast, and low temperature cure ranges in rope, strip, sheet, or two component systems.

Select the proper one(s) for the particular system used.

MATERIAL	DEFINITION
CUSHION GUM (Bonding Gum)	A tacky rubber compound used for adhesion of tread rubber, undertread repair, build-up of other repairs, or on the bottom of some repair units.
TREAD GUM	A rubber compound designed to make a tread area repair.
STRIPPING STOCK	An uncured rubber stock used to extend or build up an area.
CHEMICAL RUBBER COMPOUND (A & B GUM)	A two-part rubber putty; when mixed together thoroughly, begins curing at room temperature.
CHEMICAL RUBBER GUM	A specialty compounded repair gum which cures at room temperature when combined with a chemical vulcanizing cement.
BELT REPLACEMENT MATERIALS	Specialty materials used for replacing belts in radial tires. (See RMA Shop Bulletins No. 35A "Removal of Top Protector Ply or Belt of Radial Ply Truck Tires (Size 8.25 & Larger Cross Section)" and 35B, "Replacement of Belts During the Retreading of Radial Ply Truck Tires (Size 8.25 & Larger Cross Section)" available from address below.)
REPAIR GUM (All-Purpose Gum)	A soft, tacky multi-purpose gum.
FILLER GUM	An uncured rubber compound used to fill in low spots or repairs on a casing (filling stock).
INNERLINER GUM	A special repair material for repair of innerliners.
REINFORCED GUM	A gum strengthened by fiber which provides additional reinforcement to the repaired area.
ROPE RUBBER	An uncured rubber compound in rope form, used in a hand-held extruder gun to fill in low spots, repairs, and buzz-outs in a casing.

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