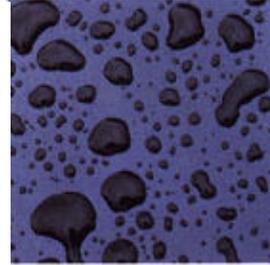
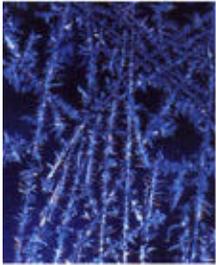




Barrett RAM-TOUGH Elastomeric Roofing Systems



*The
longest-life,
most
trouble-free
roofing system
available.*



RAM-TOUGH Roofing: for the most demanding building program

RAM-TOUGH
combines the ease
of application
and forgiveness
of BUR with the
polymer technology
of single-ply
systems

Specify RAM-TOUGH Elastomeric BUR roofing when your building program demands the longest-life, most trouble-free roof system available.

RAM-TOUGH modified built-up systems utilize the basic components of conventional BUR systems - multiple plies of fabric reinforcing between mopped-on bitumen waterproofing - but that's where the similarity ends. RAM-TOUGH waterproofing and reinforcing components have been engineered to provide an unequalled combination of strength, integrity, stress / strain dissipation and forgiveness.

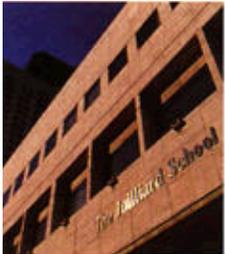
RAM-TOUGH elastomeric bitumen waterproofing

RAM-TOUGH's elastomeric mopping bitumen is a thermoplastic elastomer material that combines Shell Kraton(r) SEBS rubber polymer with a highly select grade of unoxidized asphalt. The rubber material's weblike molecular structure creates a microscopic, elastic network of strong, rubberized strands. During the polymerization process, the network absorbs the bitumen to produce a waterproofing material with exceptional self-healing properties, and excellent toughness/tenacity and flexibility especially at cold temperatures. Unlike conventional BUR waterproofing

that becomes brittle when cold, RAM-TOUGH elastomeric bitumen is capable of bending. And unlike some single-ply systems that shatter when stressed in cold temperatures, RAM -TOUGH waterproof membrane has a memory that allows it to absorb the stress, recover and form a seal around a puncture like a self-sealing tire.

RAM-TOUGH polyester reinforcing

RAM-TOUGH lightweight reinforcing employs a continuous-filament, spun bond polyester with a highly cross-linked acrylic binder that has the greatest strength-to-weight ratio of any nonwoven fabric. This combination results in outstanding thermal stability and puncture, tear and fatigue resistance. Unlike fiberglass reinforcing felts, RAM-TOUGH elongates under stress instead of becoming brittle and splitting. With a fatigue resistance 500 times greater than fiberglass, RAM-TOUGH will not ridge or wrinkle.



RAM-TOUGH, engineered at the molecular level for superior performance and durability, is self-healing and impervious to water penetration.

RAM-TOUGH elastomeric bitumen (dark) consists of a rubberized network with exceptional bending and self-healing properties.

RAM-TOUGH polyester reinforcing (light) provides outstanding thermal stability and puncture, tear and fatigue resistance.

AM-TOUGH combines advanced technology with BUR ease of installation

Barrett's state-of-the-art polymer technology has evolved from over 150 years of BUR development and decades of field experience.

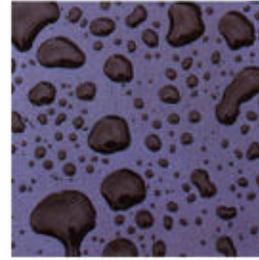
Installed by Barrett-approved contractors using conventional roofing methods, RAM-TOUGH is as easy to apply as BUR. The system's multiple plies of elastomeric waterproofing and engineered reinforcement provide added protection from hostile weather conditions and compensate for errors in workmanship that, in single-ply systems, could prove disastrous. The result is a track record of trouble-free Barrett installations - in both new construction and retrofit - unmatched by other conventional or "high tech" roofing systems.

How RAM-TOUGH compares

Compare any other roofing system RAM-TOUGH comes out on top every time. With over a decade of field history, RAM-TOUGH has never received a complaint from a contractor, architectural professional or owner regarding any of the common BUR failures - including splitting, ridging, blushing and wind-related problems - identified by Project Pinpoint, a study commissioned by the National Roofing Contractors Association. RAM-

TOUGH also eliminates the common failure of modified bitumen and single-ply systems seam defects, shrinkage and embrittlement while sharply reducing the frequency of tears or punctures.

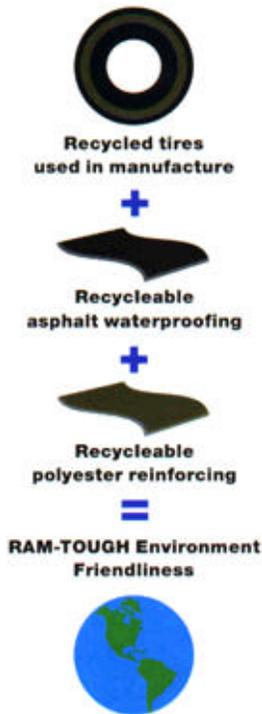
Add RAM-TOUGH's low life-cycle cost, UL Class A rating, Factory Mutual FM1-90 compliance and Barrett's Tech Service and 25-year warranty to the equation and get the longest-life, most trouble-free and cost-effective roof system available today.



	Lap seam frequency	Puncture Resistance	Tensile Strength	Stress/Strain Toughness	Cold Water Flexibility	Fatigue Resistance	Tear resistance	Self-healing Properties	Ponded water Resistance	Accelerated Aging/Longevity	Life-cycle Cost
RAM-TOUGH	●	●	●	●	●	●	●	●	●	●	●
Asphalt/fiberglass BUR	●	●	●			○	●	○	○	●	●
Coal tar/fiberglass BUR	●	●	●		○	○	●	●	●	●	●
Cold Process BUR	●	●	●				●	○	○		●
EPDM	○	○		●	●	●	○	○	○	●	
PVC	○	○		●	●	●	○	○			○
CSPE	○	○		●	●	●		○	●		
Preformed APP (fiberglass reinforced)			●		○			○			●
Preformed SBS (polyester reinforced)		●	●	●	●	●	●			●	●

●	Excellent
●	Very good
●	Good
○	Fair
○	Poor

RAM-TOUGH Is environment-friendly



The Barrett Company has fully integrated RAM-TOUGH elastomeric roofing systems into the recycling process. The bitumens are manufactured with recycled tires and the reinforcing includes recycled plastics - therefore improving the quality of the built environment while reducing a waste hazard. In addition, RAM-TOUGH's asphalt waterproofing and polyester reinforcing membrane can be recycled into high-quality asphalt concrete highway mix.

Barrett quality assures RAM-TOUGH performance

Over \$50 million has been invested in RAM TOUGH roofing technology research and development. Each Barrett production run is individually certified to be in conformance with specifications prior to shipping, and Barrett's expert technical staff is available to work with designers and specifiers during project development and construction to assure proper design and installation.

If your building program requires the longest life, most trouble-free roof system available, call the Barrett Hot Line, **800-647-0100**.

Front cover, left: Two Prudential Plaza, Chicago, Illinois. Loeb Schlossman and Hackl Architects, Chicago

Front cover, center: International Terminal, O'Hare International Airport, Chicago, Illinois. Perkins & Will, Architect Chicago

Front cover, right: Citicorp at Court Square, Queens, New York. Skidmore Owings & Merrill, New York

Page 2: Renovation of Juilliard School of Music, New York, New York. James R. Gainfort, Consulting Architects, New York

Page 3: Harold Washington Library, Chicago, Illinois. Hammond-Beebe & Babka, Architects, Chicago



Barrett Company
P.O.Box 421
Stonehouse Road
Millington, NJ 07946
voice 800•647•0100
fax 908•647•0278
email barrett022@aol.com

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