





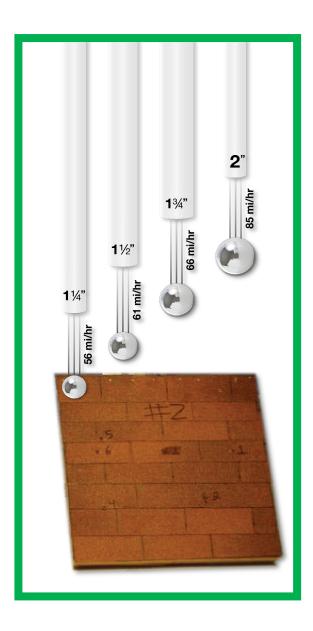




Asphalt Shingles as it Pertains to Impact Resistance, Performance and Insurance

Cooper Robbins, Colorado Sale Representatives





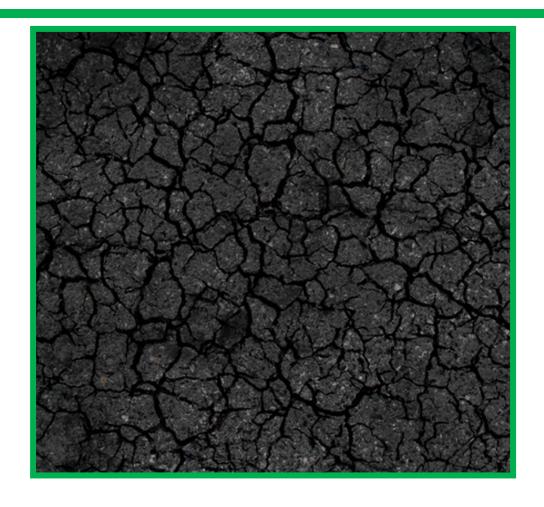
UL 2218 Standard For Impact Resistance of Prepared Roof <u>Covering Materials:</u>

- ✓ Test first introduced in 1996
- ✓ Set to measure amount of force it will take to damage a shingle
- ✓ "The test evaluates the effect of impact from the steel ball at locations on the assembly selected to be vulnerable."

IMPACT RESISTANCE TESTING					
Drop Height (ft)	12	14	17	20	
Golfball (1.680" D)	(11/4" D)	(1½"D)	(1¾" D)	(2" D)	Baseball (3" D)
Class	1	2	3	4	

Colorado Product Overview: Oxidized Asphalt





Oxidized Asphalt







POLYMER MODIFIED ASPHALT TECHNOLOGY

NEX® POLYMER MODIFIED ASPHALT TECHNOLOGY [FORMULATION]



HIGH-GRADE ASPHALT Weathering Waterproofing



SYNTHETIC RUBBER POLYMERS (SBS) Strength

Strength Flexibility



UPCYCLED RUBBER POLYMERS

Elasticity Resilience



UPCYCLED PLASTIC POLYMERS

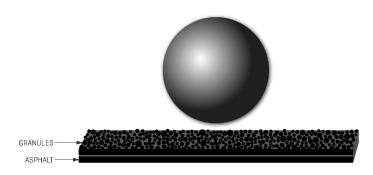
Strength Durability



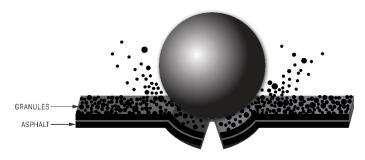
NEX® ASPHALT TECHNOLOGY

Performance Sustainability

THE DIFFERENCE BETWEEN SHINGLE CONSTRUCTIONS



TRADITIONAL CONSTRUCTION



TRADITIONAL CONSTRUCTION





UNDERSIDE WITH REINFORCEMENT





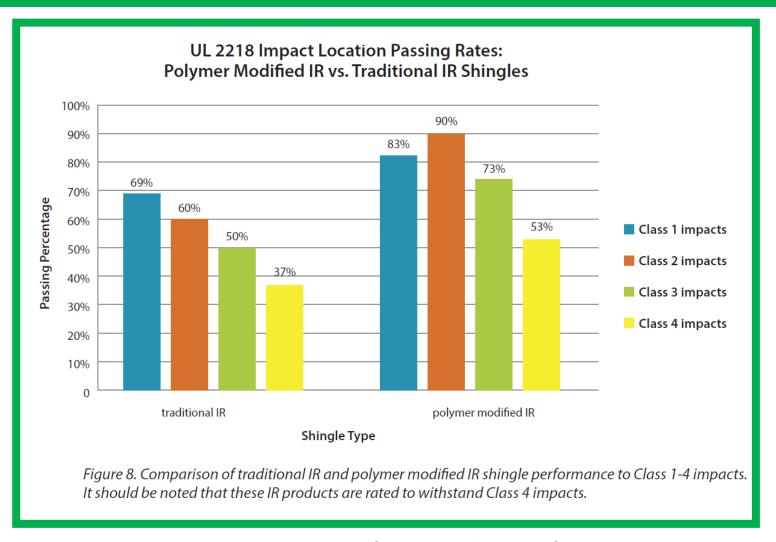


ASPHALT BINDER ENHANCED WITH (SBS) POLYMERS



ASPHALT BINDER ENHANCED WITH (SBS) POLYMERS





Source: Insurance Institute for Business & Home Safety
Relative Impact Resistance of Asphalt Shingles:
Summary of UL 2218 Impact Tests
August 2014

Insurance Institute for Business & Home Safety





The Insurance Institute for Business & Home Safety (IBHS) is an independent, nonprofit, scientific research and communications organization supported solely by property insurers and reinsurers. IBHS's building safety research leads to real-world solutions for home and business owners, helping to create more resilient communities.

-The Insurance Institute for Business & Home Safety

Thank You!

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