Enershield®
Fluid-Applied Air/Water-Resistive Barriers with Silica Fortified Rubber™ Chemistry
Creating High Performance Air/Water-Resistive Barriers

Silica Fortified Rubber™ is a unique air/water-resistive barrier chemistry from BASF. It has been designed to provide an optimal balance of properties that address the diverse needs of high-performance air/water-resistive barriers.

ENERSHIELD products are tough, self-sealing, abrasion-resistant and UV-stable. These properties are derived from the chemical makeup of ENERSHIELD. A proprietary BASF elastomeric polymer backbone is combined with silica aggregate. Both aspects make important contributions to ENERSHIELD performance.

The premium ENERSHIELD polymer matrix is plasticizer-free. This provides improved compatibility and enhanced long-term performance, since there is no opportunity for loss of properties or contamination of adjacent materials due to plasticizer migration over time. ENERSHIELD products offer six-month outdoor weather stability, and two-year shelf stability. Additional benefits include self-sealing properties with fasteners typically found on a jobsite, including screws, nails and staples.

The tenacious polymer matrix firmly holds the silica aggregate in place. Silica in the ENERSHIELD formulation provides abrasion resistance, helping ENERSHIELD manage the rigors of real world jobsite conditions. It also textures the surface, allowing sealants, adhesives and spray polyurethane foam to grab onto and firmly bond to ENERSHIELD.

Silica Fortified Rubber chemistry is suitable for extreme temperature service. ENERSHIELD-HP and ENERSHIELD-I offer an ASTM D5147 Compound Stability rating of 176.7°C. They have passed the ASTM D1970 Cold Temperature Pliability test, with no cracks after bending around a 2.54 cm (1") mandrel at -17.8°C.

ENERSHIELD-HP and ENERSHIELD-I facilitate compliance with increasingly complex building codes. Evaluation Reports from the International Code Council Evaluation Service confirm code compliance as an air barrier, water-resistive barrier and flexible flashing material. They also document code compliant fire performance. ENERSHIELD-HP and ENERSHIELD-I are recognized by the Air Barrier Association of America and can be used on projects with ABAA performance specifications.
Premium Silica Fortified Rubber chemistry creates notable in-use efficiencies. Since it offers excellent strength, durability and self-sealing properties, the amount of material needed to function effectively is reduced. This allows ENERSHIELD products to dry quickly and simplify application. It also allows ENERSHIELD-HP and ENERSHIELD-I to provide ASTM E84 Class A performance without relying on flame retardant additives. NFPA 285 fire tests and engineering analyses are available upon request for a range of wall assemblies.

Being water-based, ENERSHIELD is non-flammable as applied. In addition, it offers low VOC content, low odor and low toxicity. So it is friendly to the people who apply it as well as the buildings it is applied to.

Sustainable development is a core strategic principle of BASF, and ENERSHIELD is an example of this principle in action. Together with design professionals and contractors, BASF Construction Chemicals helps build and restore structures that perform to the highest standards while minimizing environmental impact.