

Frank Lloyd Wright's Fallingwater - *Mill Run, PA*



Living on a Waterfall

"Fallingwater" is regarded as one of the best-known buildings of the world-renowned American architect Frank Lloyd Wright (1867-1959) who built this legendary private house in America's Allegheny Mountains from 1935 to 1937. His client was department store owner Edgar Kaufmann from Pittsburgh, who initially expressed more surprise than enthusiasm when confronted with his architect's idea. Wright had decided to build the stone-and-concrete house directly above the waterfall from which the house takes its name. Living in natural surroundings taken to the extreme! The occupants' enjoyment came now not from a view of the waterfall, but from the sound of it inside the house. Even the family's former sunbathing terrace was physically incorporated into the living room by leaving some of the original boulders protruding through the floor - a functional work of art that was converted into a museum in 1964.

The name, which on the one hand describes the romantic glorification of the position within natural surroundings, also describes the problem of the architecture itself. Moisture is always present around a waterfall, a real tour de force for any waterproofing system.

Liquid Waterproofing versus Liquid Water

The stone facade of the house owes its horizontal composition to the projecting reinforced concrete balconies and overhanging roofs. Structural flaws and the natural position of "Fallingwater" had led to the need for comprehensive repairs in 2002. Kemper System membranes were applied on approx. 1,000 sqft. of flashings and penetrations in combination with a modified roof in the field. The challenging part was to terminate the membrane on an uneven stone surface. The stone could not be grinded or removed because of its historical value

therefore a Kemperol BR resin/sand mixtures was used to level the uneven vertical surface and to create a self terminating, fully adhered detail. Previous attempts using termination bar had failed.

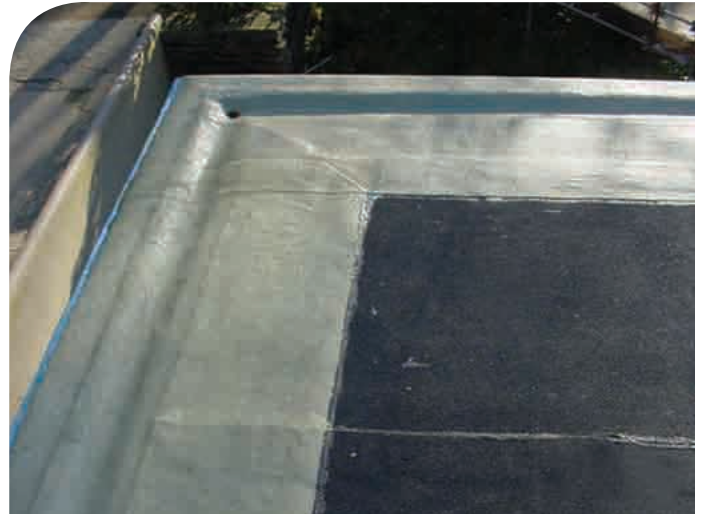
Thanks to its permanent elasticity, Kemper System membranes are able to accommodate structural movements. A chemical reaction causes the liquid waterproofing material to form a full bond with the substrate, thus ruling out the risk of moisture seeping underneath. These characteristics mean that critical joints and junctions between different materials, in the case of Fallingwater stone and concrete, can be waterproofed with Kemper System membranes. They remain permanently elastic even under severe climatic conditions; they are rot and root resistant and offer a peace-of-mind waterproofing solution for critical areas.

State-of-the art waterproofing and roofing systems

Kemper System membranes are designed for optimal performance. Our two-part resin-fleece technology creates a seamless, monolithic waterproofing membrane that can be adapted to protect almost any architectural element. From plazas, terraces, planters and fountains to industrial roofing, historic restoration and complicated gutterways and flashings, Kemper System membranes provide limitless solutions for waterproofing, roofing and surfacing applications.

Kemper System - over 50 years of experience in cold liquid-applied resins

Kemper System is a leading manufacturer of liquid-applied waterproofing and roofing systems for high profile applications. Kemper System fleece-reinforced, cold-applied resin membranes reliably protect the most renowned buildings such as the Empire State Building, the Freedom Tower, Fenway Park, Madison Square Garden, Falling Water, Woodruff High Museum of Art. Building Owners and property managers base their trust on a proven performance of over 50 years. Kemper System focuses on sustainable products with renewable resources and solvent-free applications.



Building Owner:

Western Pennsylvania Conservancy

Contractor:

J.L. Robinson, Inc.

Specifier:

Wank Adams Slavin Associates, NY

Year of completion:

2002

Surface size:

1,000 sq.ft.