



## Easy Insulation with ELASTOSPRAY® CH SPF Roofing Systems

New buildings and renovation of old buildings are characterized by the increasing need for energy-saving and environment protection. While sealing and providing structural support are important qualities of roofing insulation, roofs also have to withstand heat and cold, dryness and moisture, storms and snow-load over decades.

BASF's Elastospray® CH Spray Polyurethane Foam (SPF) roofing system, a rigid foam spray-applied system with up to 95% closed-cell content, provides sustainable, high-performance and low-maintenance-cost roofing insulation. It is a seamless and self-finishing system that eliminates thermal bridging and hence provides superior insulation proerties.

## **Applications**

The ELASTOSPRAY® CH SPF Roofing System is suitable for both new and old roofs. It can be applied directly to the existing substrate in 95% percent of retrofit cases, eliminating the cost of tear-off, reducing the amount of waste generated as well as limiting interior exposure and downtime.

The Elastospray® CH is particularly suitable for

### • A wide range of roofing systems

Every type of roof - from flat roof to, profiled metal sheeting roof, corrugated sheeting roof, steep pitch roof, sloping roof, duo-pitch roof, mono pitch roof and barrel roof - can be insulated and sealed by Elastospray® CH.

Elastospray® CH is not confined solely to application for industrial roofing. Public buildings too, such as sports centers and indoor swimming pools, also private housing, benefit from heat-saving insulation combined with jointless sealing provided by this material.

The widely-diversified range of Elastospray<sup>®</sup> CH applications and its reliable processing properties satisfy the requirements of these architectures.





## • Reinforcement of damaged and insufficiently insulated roofs

It is often extremely expensive to rectify material fatigue, faults in workmanship, air permeability or thermal bridges in such buildings, and bring them up to present-day standards. But Elastospray® CH can help to keep the costs down.



### • Renovation of old buildings

Roof surfaces can be jointlessly sealed and permanently insulated with Elastospray® CH. This also covers countless critical points such as dome-lights, connections and rows of windows, parapets and pipe ducts. In addition, Elastospray® CH provides long-term resistance to development of condensation. The ability of the PU spray foam to be securely attached to complex shaped surfaces enables the architect to plan and execute insulation work, even on unconventionally designed roofs, with ease and convenience.

## Processing

Experience shows that roof sealing with Elastospray® CH spray foam systems generates time savings of up to 80% and reduces cost by as much as 50%, compared with conventional methods. An



experienced processing team can cover more than 1,000 m<sup>2</sup> of roof surface per day, with the use of one machine under favorable conditions.

Elastospray® CH systems are processed with mobile spraying units. In this procedure, the A- and B- components are pumped through heated high-pressure hoses to the spray gun where they are completely mixed by counter-flow injection. Qualified and experienced skilled operators will spray the reactive mixture from the gun, jointlessly and precisely metered, onto dry, dust-free substrate.

Within just a few minutes after coating, Elastospray® CH will be cured and hard enough to be walked on. Considerable time and financial savings are made possible in the process.



Roof coating with Elastospray® CH foam system. Three layers of Elastospray® CH, each of which 10 to 15mm thick, ensure durable insulation and sealing. BASF spray systems adhere seamlessly to the substrate like a second skin.

In the final stage, UV protective coating is applied. The varied range of approved UV protective products allows architects and operators a wide range of coating choices, from silver reflective coating to thick coating with a protective surface or even one with additional slate cladding/silica sand. Conventional gravel layers can be used together with Elastospray® CH for added surface protection.

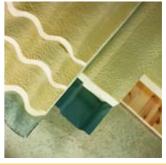




Coated with Elastospray® CH and provided with a UV protective coating: all finished. Such a treatment enables the firm sealing of roofing systems, with energy-conserving effects to last for years.

## Renovation with Elastospray® CH roof spray foam:

- Thermal insulation and sealing in a single operation
- Usually no break-up of the old roof surface
- No restrictions on working during renovation
- Low weight, which means that no static problems will arise
- Short installation time (average rate of 1,000 m2 per machine per day)
- Surface protection by coatings with and without slate cladding/silica sand



Elastospray® CH systems are suitable for many kinds of surfaces such as those made of corrugated fibrous concrete, trapezoidal sheet or wood.

# **BASF Polyurethanes Worldwide Network**

## Benefits of Elastospray® CH roof spray foam system at a glance:

### Energy efficiency, environmental friendly

- Maximum energy-saving as a result of optimal insulation with no joints or thermal bridges.
- Permanent insulation.

#### Improved chemical and temperature resistance

- Chemical resistance against weak acids, sea water, industrial waste gases and aliphatic hydrocarbons (mineral oil, petrol, diesel fuel).
- Heat, frost and temperature resistant from -50°C to +100°C; Ot resistant.

### Lighter and stronger structures

- Low weight, and hence hardly any additional loading on building structures
- Can be walked upon
- Simultaneous sealing, since over 95% closed cell content

## BASF projects in China with Elastospray® CH roof spray foam system



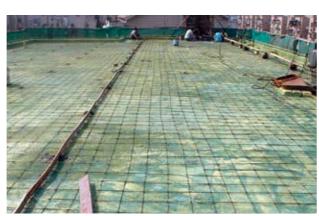
Building of China Ministry of Education



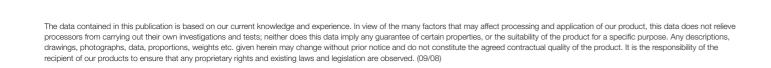
Fortune Residence Building



Building of China Ministry of Information Industry



Renovation of Shanghai Hongkou Haifeng Residence Zone





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