

News Release

P204/19e May 14, 2019

BASF plastic additives protect the roof at Incheon Airport's Terminal 2

Additives package in TPO roofing membranes provides long-lasting protection against harsh weather conditions

Longer durability reduces environmental impact and saves costs

Hong Kong – May 14, 2019 – BASF's plastic additives package is helping to protect the roof at Incheon Airport's Terminal 2, with thermoplastic polyolefin (TPO) sheets produced by Wonpoong Corporation in South Korea under the brand name SuperGuard[™]. TPO sheets are widely used as roofing membranes in commercial buildings and other structures as a more environmentally friendly alternative for highperformance waterproofing.

The additives package, comprising a light stabilizer from the Tinuvin[®] range and an antioxidant from the Irgastab[®] range, helps protect the TPO membranes, hence the roofs, from wear and tear resulting from extreme heat and light exposure.

"TPO roofing membranes produced with BASF's polymer formulation and stabilization can perform in some of the most extreme climate conditions and meet current roofing and waterproofing standards," said Hermann Althoff, Senior Vice President, of BASF's Performance Chemicals unit in Asia Pacific. "Our stabilizers reduce production costs and make products last longer, and thereby help to conserve precious raw material."

The light stabilizer is based on BASF's proprietary NOR-HALS (hindered amine light stabilizer) technology. Due to the inherent advantages of NOR-HALS technology, the stabilizers have a lower interaction with system components and acidic

environmental contaminants than traditional HALS products, thereby helping to retain the mechanical properties of TPO membranes to meet the demands of building owners.

Heat and UV exposure are two of the most detrimental factors affecting the useful life of roofing membranes today. Manufacturers need to fulfill the new ASTM D6878 standard for TPO roofing formulations. These standards identify the minimum levels of exposure to heat and UV levels that a TPO membrane must be able to withstand. By using BASF's plastic additives technology, Wonpoong succeeded in winning the contract over other companies by receiving a better evaluation for weatherproofing.

"We tried solutions from other suppliers but got the best results with BASF's technology," said John Yu, Director of R&D at Wonpoong Corporation. "Now we are able to ensure the polymer's UV resistance and provide our customers with more durable products."

Energy issues are growing in importance in the selection of all building materials, and roofing is no exception. Factoring in overall energy performance as part of a system's life-cycle cost, many customers and contractors are insisting on TPO roofing membranes as they are heat-reflective. Energy efficient roofing systems can reduce a building's internal cooling costs dramatically.

About BASF Plastic Additives

BASF is a leading supplier, manufacturer and innovation partner of plastic additives. Its comprehensive and innovative product portfolio includes stabilizers which provide ease in processing, heat and light resistance to a variety of polymers and applications including molded articles, films, fibers, sheets and extruded profiles. More information about plastic additives: www.plasticadditives.basf.com.

BASF Plastic Additives is part of BASF's Performance Chemicals division. The division's portfolio also includes Fuel and Lubricant Solutions, Kaolin Minerals, as well as Oilfield and Mining Solutions. Customers from a variety of industries including Chemical, Plastic, Consumer Goods, Energy & Resources and Automotive & Transportation benefit from our innovative solutions. To learn more, visit http://www.performancechemicals.basf.com.

About BASF

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Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of around €63 billion in 2018. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the U.S. Further information at <u>www.basf.com</u>.