

News Release

P255/19e
July 10, 2019

Novel Tinuvin® NOR® Light and Heat Stabilizer for high end Agricultural Plastics

- **BASF's technology and know-how help certified organic farmers produce in a sustainable way**
- **Next generation Tinuvin® NOR® – BASF's continued investment and commitment to developing Plasticsulture**

BASF, the global leader in the field of high-quality and innovative antioxidants and light stabilizers world-wide, expands its NOR® technology to help farmers continuously produce in a sustainable way.

With an increasingly demanding growing population, modern farming faces many challenges including how to balance the need for greater yields of fruits and vegetables, whilst simultaneously meeting the ever-stringent environmental protection requirements of organic food production.

By using the energy from the sun in a world with less arable land and increasing water scarcity, Plasticsulture – the use of plastic materials in agricultural applications, contributes significantly to producing more and better food all year. Prominent examples of Plasticsulture's high efficiency to use natural resources in a sustainable manner include: greenhouse covers which keep uniform temperature and humidity for continued food production; mulch films and irrigation pipes which reduce water consumption; and silage films which store livestock food in a cost-effective way.

“The development of Tinuvin® NOR® 356 is the result of BASF's extensive competency in light and thermal stabilization combined with our deep knowledge of

agricultural market requirements,” said Volker Bach, head of BASF’s Global Competence Center Plastics Additives, BASF. “Our organic farming customers can benefit from higher yields produced in a sustainable way.”

Tinuvin® NOR® 356 protects and extends the lifetime of agricultural films that are exposed to very high levels of UV radiation, heat and crop treatments such as elemental sulfur, and the compounds approved in certified organic farming to prevent plants diseases and fertilize the soil.

Strong commitment to the agriculture industry

When exposed to the sun’s intense radiation and agrochemicals, a series of complex chain reactions cause the agriculture plastics to begin degradation and finally, become brittle. When added to the polymer, the Tinuvin® NOR® light stabilizers neutralize the complex chain reactions and disrupt the reaction cascade. This protects the agricultural films, in particular greenhouse covers, and extends their durability. Standard light stabilization solutions are not effective under these challenging conditions due to their limited resistance to agrochemicals, elemental sulfur and disinfection products.

The improved film protection and lifetime extension under NOR®-stabilized greenhouse covers increase productivity, improve crop quality and reduce plastic waste for farmers which makes them more competitive.

To serve the increasing demand for organic farming, BASF has continued to invest in the NOR® technology by creating this new generation NOR® and expanding production capacity. In addition to the increased NOR capacity, BASF continues to invest at all key light stabilizers production sites in Pontecchio Marconi (Italy), Lampertheim (Germany), McIntosh (USA) and Puebla (Mexico).

Receive the latest press releases from BASF via WhatsApp on your smartphone or tablet. Register for our news service at [basf.com/whatsapp-news](https://www.basf.com/whatsapp-news).

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 Chemicals, Plastics, Consumer Goods, Energy & Resources and Automotive & Transportation benefit from our innovative solutions. To learn more, visit <http://www.performancechemicals.basf.com>.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The approximately 122,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into six segments: Chemicals, Materials, 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 www.basf.com