Chimassorb® 2020

The advanced light stabilizer for polypropylene fibers, yarns, nonwovens and carpets

BASF
The Chemical Company

More than a conventional HALS

- Smoother processing
- Increased productivity
- Lower fiber production costs
- Prolonged end-product life
- Reduced interaction with pigments

The advanced light stabilizer for polypropylene fibers, yarns, nonwovens and carpets

Chimassorb® 2020 is a high-molecular-weight, hindered amine light stabilizer (HALS) with excellent polymer compatibility and high extraction resistance. It combines exceptionally high UV and long-term thermal stability in the presence of polymers, and is further distinguished by properties such as improved pigment dispersion and process control.

A wide variety of fiber applications

Chimassorb® 2020 is suitable for all polyolefins, especially

- Polypropylene (PP) fibers and staple fibers, e.g., geomembranes and packaging
- PP fibers and yarns for automotive interiors and carpets
- PP spun-bond nonwovens for colored, outdoor and high-temperature applications

Stable at high temperatures

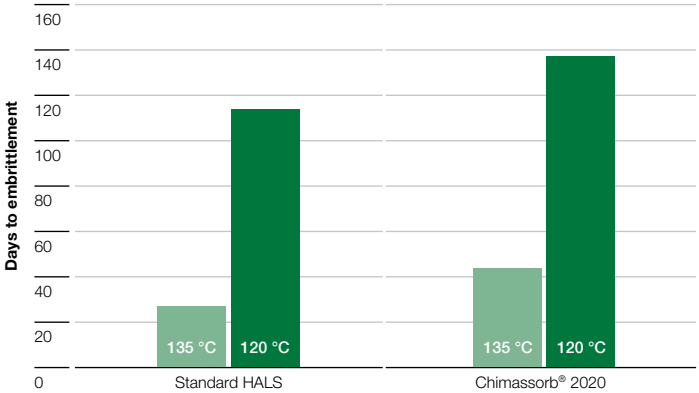
- Molecular weight: 2,600–3,400 g/mol
- Melting range: 120–150 °C
- Volatility (TGA*, in air at 20 °C/min)
  - Temperature at 1 % weight loss: 290 °C
  - Temperature at 10 % weight loss: 355 °C

Further end uses are PP and polyethylene (PE) tapes. These applications are described in a separate brochure.

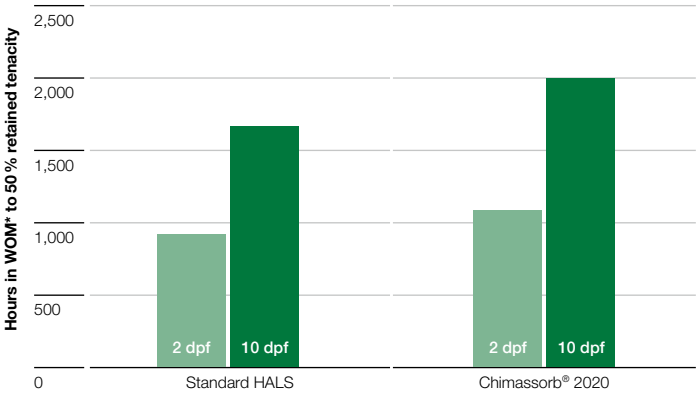
* TGA = Thermogravimetric analysis

High performance in processing and end use

Chimassorb® 2020 has numerous advantages over standard HALS.



PP homopolymer, MF* 4 (230 °C / 2.16), 1-mm compression-molded plaques
Stabilization: 0.1 % HALS + 0.15 % Irganox® B 215 + 0.05 % Ca stearate
* MF = Melt flow



Base: 0.3 % HALS + 0.2 % Irganox® B 501W + 0.1 % Ca stearate + 0.25 % TiO_2
Exposure: WOM* dry, 0.5 W/m²; bst 65 °C
* WOM = Weather-Ometer® test

Improved long-term thermal stability

High resistance to critical temperature conditions facilitates processing and prolongs end-product life.

Excellent light stability

Chimassorb® 2020 performs especially well in fine fibers and thin sections, prolonging the life of textiles and outdoor items.

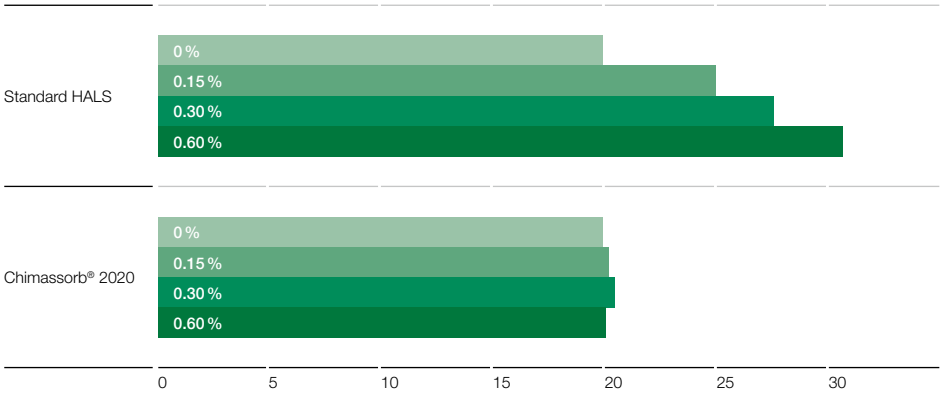
Minimized interaction with fillers and pigments

Chimassorb® 2020 facilitates color matching, improves final product quality and helps to reduce coloration costs because it interacts very little with fillers and pigments and has excellent dispersion properties.

Optimized melt flow control

Higher stability during processing is achieved with Chimassorb® 2020 because it helps to control melt flow properties. This enables longer running times and reduces the formation of decomposition products. Optimum throughput increases productivity and lessens the need for equipment cleaning as well as lowering the number of filter changes required.

Base stabilization: 4 % TiO_2 + 0.25 % HALS
Pigmentation: 0.3 % Blue 15



Melt flow (230 °C / 2.16 kg) after spinning

Base: 0.2 % Irganox® B501W + 0.10 % Ca stearate + 0.25 % TiO_2
Spinning: at 270 °C, multifilament: 370/37 dpf

For more information on Chimassorb® 2020, please contact your local plastic additives representative or visit **www.plasticadditives.basf.com**.

Asia
BASF East Asia
Regional Headquarters Limited
Plastic Additives
45th Floor, Jardine House
No. 1 Connaught Place
Hong Kong
Phone: +852 2731-0111

Europe
BASF Schweiz AG
Plastic Additives
Klybeckstr. 141
4057 Basel
Switzerland
Phone: +41 61 636-1111

Middle East
BASF Plastic Additives
Middle East S.P.C., Bahrain
International Investment
Park (BIIP)
Road 1518, Al Hidd,
Kingdom of Bahrain
Phone: +973 17 585 252

North America
BASF Corporation
Plastic Additives
100 Park Avenue
Florham Park, NJ 07932
USA
Phone: +1 973 245-6000

South America
BASF S. A.
Plastic Additives
Sede Administrativa
Av. das Nações Unidas,
14.171, Morumbi
04794-000 São Paulo, SP
Brazil
Phone: +55 11 2039-2273

www.plasticadditives.basf.com

EVP-2013/2020e

BASF
The Chemical Company