



PERFORMANCE PROPERTIES

NOFIA HM1100, HM9000 & HM7000

DESCRIPTION

Nofia HM1100, HM9000 & HM7000 have an exceptionally high limiting oxygen index, which makes them particularly well suited to be used as an FR additive. These materials are transparent polymers with a glass transition temperature of about 105°C and cover a wide range of melt flow.

BENEFITS AND FEATURES

- *Transparent*
- *Non-halogenated*
- *Non-corrosive and non-migrating*
- *High melt flow*
- *High limiting oxygen index (LOI) – 60%*

RESIN SYSTEMS

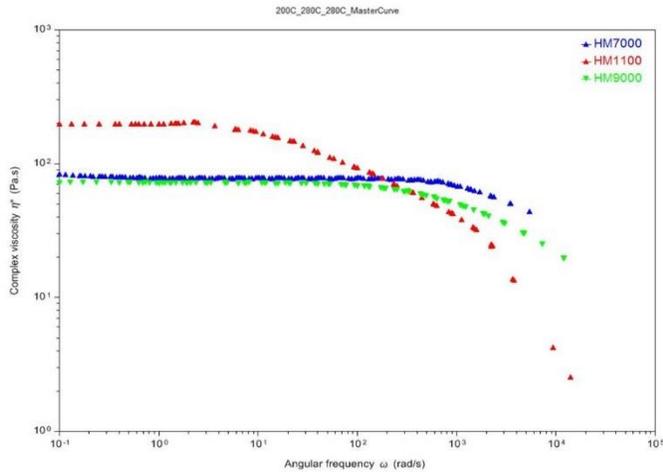
PET, PTT, PBT, PLA, PC, TPU, TPEE

PRODUCT APPLICATIONS

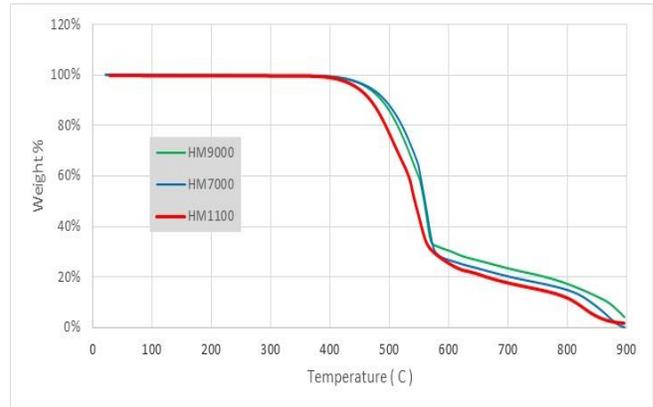
Fibers for carpet and textiles, foams, electronic connectors, wire and cable, transparent sheet products and blown films.

TYPICAL PROPERTIES

Typical Properties	Nofia HM1100	Nofia HM9000	Nofia HM7000
Form:	Plastic Pellets	Plastic Pellets	Plastic Pellets
FR Type:	Phosphorus based	Phosphorus based	Phosphorus based
Phosphorus Content:	10.5 wt%	10.5 wt%	10.5 wt%
MVR (240°, 1.2kg):	10 cm ³ /10 min	25 cm ³ /10 min	80 cm ³ /10 min
MVR (200°, 1.2kg):	2.5 cm ³ /10 min	5 cm ³ /10 min	20 cm ³ /10 min
Light Transmittance:	>88%	>88%	> 88%
Tg:	105°C	105°C	105°C
LOI:	60%	60%	60%
UL 94 @ 0.4 mm:	V0	V0	V0
TGA Decomposition 5wt% (air) [°C]	≥ 440 °C	≥ 460 °C	≥ 460 °C
Specific Gravity:	1.20	1.20	1.20
Bulk Density:	0.73 g/cm ³	0.73 g/cm ³	0.73 g/cm ³
Remarks	High molecular weight	Medium molecular weight	Low molecular weight



Viscosity Curve of Nofia Homopolymer @ 280°C



TGA Graph of Nofia Homopolymer

HANDLING AND USE

Nofia flame-retardants are considered non-hazardous materials when handled in accordance with standard industrial hygiene practices. Material Safety Data Sheets are available. You are encouraged to read and understand these documents before using the product.

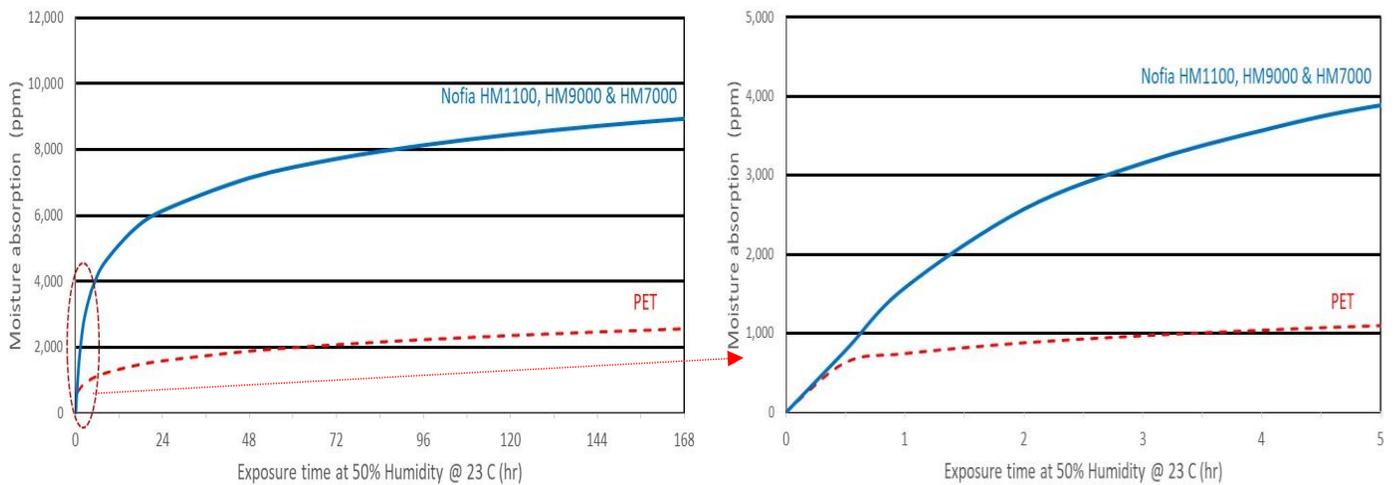
DRYING CONDITIONS

Nofia phosphonates are hygroscopic materials and quickly absorb moisture from the atmosphere. The presence of moisture could hydrolyze the polymer in the melt phase at high temperature (e.g. > 220°C), reducing the molecular weight. Therefore, it is critical that the material is thoroughly dried prior to melt processing (<50 – 200 ppm moisture). For recommendations on drying, please refer to FRX Polymers' Technical Bulletin "Nofia Phosphonates Drying Recommendations".

Drying: 95°C for at least 6 Hours
Desiccant dryer with dew point -40°C
Max Moisture Content 0.02 wt%

Compounding: Melt Temperature: 180 °C - 300 °C

Moisture Absorption of Nofia HM1100, HM9000 & HM7000



The information presented herein is believed to be accurate and reliable but is subject to change. It is presented without guarantee or responsibility on the part of FRX Polymers. It is the responsibility of the user to comply with all applicable laws and regulations and to provide for a safe workplace. Additional information relating to the product can be obtained from the Material Safety Data Sheet. Nothing in this Data Sheet shall be construed to modify any of FRX Polymers standard terms and conditions of sale nor shall be construed to constitute a representation or warranty, express or implied, regarding the product's characteristics use, quality safety merchantability or fitness for a particular purpose. Nothing contained herein shall constitute permission or recommendation to practice any intellectual property without the permission of the owner.

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