

Technical Data Sheet

Revision Date: 2021-09-01

Name: WHT-HF6488K1M

NO.WHPU_0001

Version: 6.0

Type

Polyether-based grade, halogen-free flame retardant grade.

Features

Halogen-free and environment-friendly, mat , flame retardant, excellent mechanical properties and processability.

Applications

Primary Use:

Extrusion – wire and cable

Secondary Use:

General extrusion and injection molding where flame retardant properties are required.

Typical Properties

Items	Test Method	Units	Values
Shore Hardness	ASTM D2240	Shore A	87
Density	ASTM D792	g/cm ³	1.15
Tensile Strength at 100% Elongation	EN50363	MPa	7
Tensile Strength at 300% Elongation	EN50363	MPa	12
Tensile Strength	EN50363	MPa	28.0
Ultimate Elongation	EN50363	%	550
Tear Strength	EN 50396	N/mm	47
Flame Rating	UL94	—	V2
Flame Rating	EN 60332-1-2	—	Pass
DIN Abrasion	ISO 4649	mm ³	35
110℃ X 168 hrs heat aging			
Tensile Retention	UL1581	%	90
Elongation Retention	UL1581	%	95

110°C X 168 hrs in IRM902 oil			
Tensile Retention	ASTM D471	%	95
Elongation Retention	ASTM D471	%	95

*All these physical properties are based on injection molded or extrusion samples, which are conditioned at 23 °C/50% for 24h. Above values are typical values and should not be used as specifications.

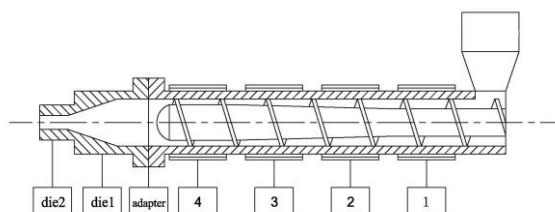
Processing Recommendations

Based on our experience, the features of recommended screw are the following:

1. L/D ratio should be between should be 28 and 32.
2. The appropriate compression ratio is from 2:1 to 3:1.
3. The screw extruder should have four sections which have continued constant pitch. The distance between screw and barrel should be 0.1 to 0.2 mm. Depending on the size and type of the screw and die, the breaker plates used should have holes of 1.5 to 5 mm.
4. Main power is at least 1.5 times higher than that for PVC and other common plastics.
5. TPU is shear sensitive, for this reason, the speed of extruder should be low in case of degradation during processing.

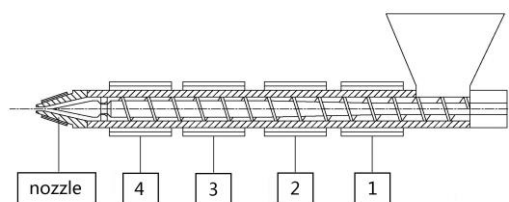
Typical Processing Conditions

WanBlend® WHT-HF6488K1M can be both extruded and injection-molded. Typical processing conditions are listed in the following tables and figures. You can contact our [technical service](#) for further inquiries about products or troubleshooting.



Type: screw: 40mm, L/D: 32, compression ratio 3:1

	Zone1	Zone2	Zone3	Zone4	Adaptor	Die1	Die2
°C	165-170	170-175	175-180	180-185	185-190	180-185	175-180



	Zone1	Zone2	Zone3	Zone4	Nozzle	Mold
°C	175-180	180-185	185-190	190-195	185-190	30

Drying

WanBlend® materials are supplied pre-dried in moisture guarded bags. Dry WanBlend® will rapidly absorb moisture when exposed to atmosphere. For recyclable products, WanBlend® WHT-HF6488K1M must be dried before processing. It is recommended to dry the material at 80-100 °C for 3-4 h in a circulating air or dehumidified air dryer. The moisture content must be lower than 0.02% before and during processing.

Packaging

WanBlend® WHT-HF6488K1M is packaged in the form of uncolored pellets in PE-lined bags of 25 Kg net weight (1000 Kg/pallet).

Storage

WanBlend® should be inspected to assure containers are not broken during transportation. Containers should be stored in a cool and dry environment, and should be brought to room temperature before opening in order to prevent condensation. Once being used, containers with residual materials should be sealed. It is necessary to cover the feed hopper of the processing machine.

Health and Safety

WanBlend® materials have no hazardous reactions observed. The waste can be discarded to public garbage cans. When contacting or processing this product, it is recommended that all personnel wear eye/face protection and suitable protective clothing. Any further safety information about this product is available in our [technical service](#) center.

For more information about safety and environment, please refer to our MSDS or contact our customer service center.

Version Information:

Date of first issue: June 6, 2013.

Date of 1st revise: Feb 6, 2015 Reason for revision: The need of product classification.

Date of 2nd revise: May 5, 2015 Reason for revision: A change of company address.

Date of 3rd revise: Aug.18, 2015 Reason for revision: Unified the template of TDS.

Date of 4th revise: May 31, 2016 Reason for revision: Change of product standard.

Date of 5th revise: Apr. 22, 2017 Reason for revision: Change of company LOGO.

For further information please contact us:

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The information provided here is for reference only. The specification will be provided in the quality certificate or in the contract. It is the user's responsibility to test the material and its suitability for a process. We have no control over what another party does with the material and we cannot take any responsibility for another party's action. Nor will we be responsible for any indirect damages while using our products. The user is welcome to contact our customer and [technical service](#) center with questions on our products.