

TWO COLOURS



ONE DIRECTION

TIPPLEN H 659 F

POLYPROPYLENE Tipplen H 659 F is a new homopolymer grade for thin thermoformed and blow moulded products

TVK has developed a new polypropylene homopolymer, Tipplen H 659 F, which is produced by Spheripol polymerization technology.

Tipplen H 659 F resin possesses medium molecular weight and excellent mechanical properties for extrusion. The stiffness of the product is unique (see the values in the table). The product has excellent optical properties and high transparency. The product shows 40 % haze value in contrast with 70 % as typical value of homopolymer measured at injected moulded plate.

Industrial trials show that Tipplen H 659 F can be processed on sheet extrusion lines and blow moulding machines at high output rates with high homogeneous appearance for customers, which require for production of thin, high transparent products.



	Test method	Units	H 659 F	H 681 F
MFR (2.16 kg/230 °C)	ISO 1133	g/10 min	1.7	1.7
Haze (at 2 mm injected moulded plate)	ISO 14782	%	40	76
Tensile strength at yield	ISO 527-1,2	MPa	41	34
Tensile elongation at yield	ISO 527-1,2	%	8	11
Modulus of elasticity in tension	ISO 527-1,2	MPa	1850	1400
Flexular modulus	ISO 178	MPa	1850	1400
Izod impact strength (notched, 23 °C)	ISO 180/1A	kJ/m ²	5.5	6
Izod impact strength (notched, 0 °C)	ISO 180/1A	kJ/m ²	2	2.5
Charpy impact strength (notched, 23 °C)	ISO 179	kJ/m ²	6	6
Charpy impact strength (notched, 0 °C)	ISO 179	kJ/m ²	2	1.8
HDT (0.46 N/mm ²)	ISO 75-1,2	°C	110	98
Rockwell hardness	ISO 2039/2	R scale	100	94

These are typical properties, not to be used as specification.

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TARGET APPLICATIONS:

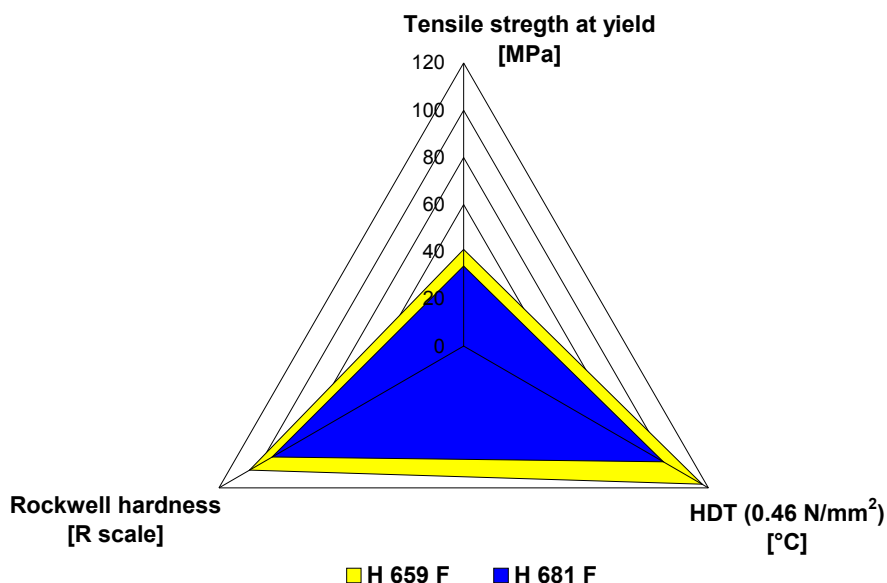
- ▶ sheet extrusion for thermoforming household articles
- ▶ blow moulded bottles
- ▶ food packaging with hot filling
- ▶ packaging for diary products, fruittrays, biscuits, chocolates etc.

Compared to the current market benchmark, Tipplen H 681 F, the processing performance of Tipplen H 659 F remains on the same high level. The transparency of the products made from H 659 F is higher with approximately 50 % than the products made from H 681 F and a competitive grade (see the photos).

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The new grade has higher flexural modulus, stiffness, tensile strength and higher deflection temperature than H 681 F (see the diagrams). Due to outstanding heat deflection stability (HDT), Tipplen H 659 F is exquisitely applicable for food packagings, which are filled hot, that's why the cost of the sterilization can be decreased.

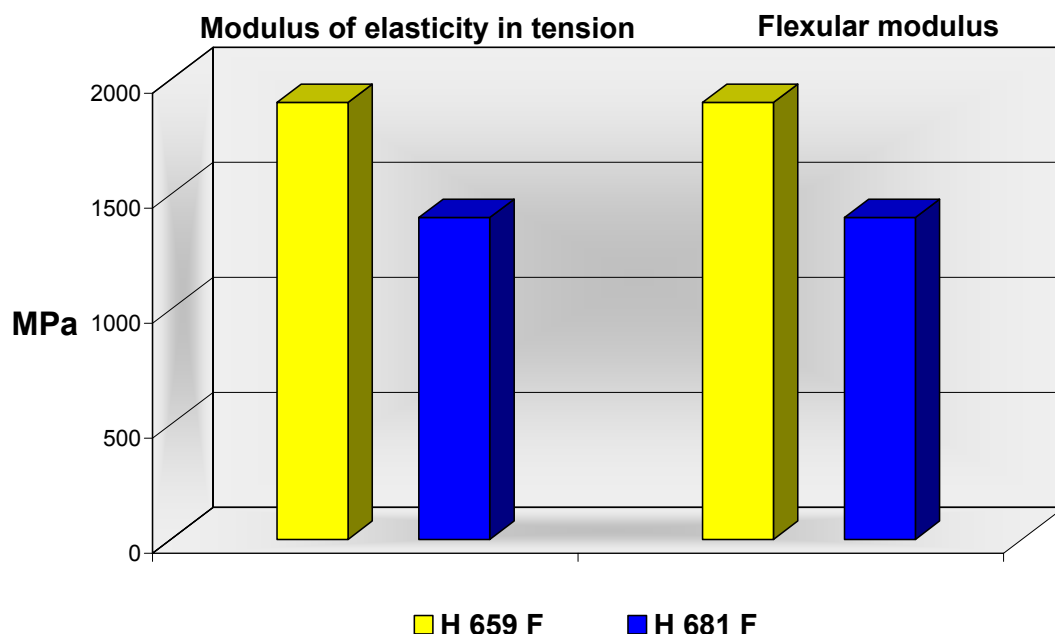


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DISCLAIMER

The information provided in this publication has been compiled to the best of our present knowledge. However, in view of the various applications of polypropylene resins and the equipment used, the processing conditions may differ. The recommendations and data herein are to be construed as informative only and do not relieve users from carrying out their own tests and experiments prior to processing in order to check suitability for a specific use. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed. Our products are under continuous development, therefore we reserve the right to change the information presented in this brochure at our own discretion.

Date of issue: February, 2009

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