

TWO COLOURS



ONE DIRECTION

Polypropylene

**TIPPLEN R 659**

Random copolymer for extrusion

\*\*\*\*\*

### Description

**TIPPLEN R 659** is a random copolymer polypropylene for extrusion and injection moulding. **TIPPLEN R 659** is formulated with a nucleating agent. The product shows high transparency and gloss.

### Applications

Typical application include the blow moulded bottles for detergent and toiletries and flat mineral water.

**TIPPLEN R 659** is well suited for extruded sheet for stationery folder and thermoforming articles.

**TIPPLEN R 659** is suitable for food contact. The product complies to Food Contact Regulations.

### Properties

	Test method	Unit	Typical value
MFR (230 °C/2.16 kg)	ISO 1133	g/10 min	2
Tensile strength at yield*	ISO 527-1,2	MPa	29
Tensile elongation at yield *	ISO 527-1,2	%	12.5
Modulus of elasticity in tension *	ISO 527-1,2	MPa	1000
Flexular modulus *	ISO 178	MPa	950
Izod impact strength (notched,23 °C) *	ISO 180/1A	kJ/m <sup>2</sup>	24
HDT (0.46 N/mm <sup>2</sup> ) *	ISO 75-1,2	°C	88
Rockwell hardness *	ISO 2039/2	R scale	78

\* Typical properties, not to be used as specification. Average mechanical property values of several measurements carried out on standard injection-moulded test specimens prepared in accordance with ISO 1873-2.



### Processing

**TIPPLEN R 659** can be used in conventional extrusion and injection moulding machines.

Recommended processing temperature 185 – 230 °C.

### Storage and Handling

Pellets are packed in 25 kg PE-LD bags and transported on shrink-wrapped pallets at eligible load of polymer 1250 or 1375 kg. Transportation in a road silo or rail silo is also available.

If polymer is stored in conditions of high humidity and fluctuating temperatures, then atmospheric moisture can condense inside the packing. If it happened, it is recommended the pellets to be dried before use. During the storage polypropylene should not be exposed to UV radiation. Producer does not take responsibility for any damages caused by adverse storage.

Polymer should be handled and stored away from contact with direct flames and other ignition sources.

### Safety

See MSDS.

### Recycling

Polypropylene resins are suitable for recycling using modern methods of shredding and cleaning.

In-house production waste should be kept clean to facilitate direct recycling.

### Notes

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 informatory 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.

TIPELIN TIPOLEN TIPPLEN TATREN BRALEN

The joint product portfolio of TVK and Slovnaft provide infinite opportunities

MEMBERS OF THE MOL GROUP



**MANUFACTURER**

Tiszai Chemical Group Plc.  
Polymer Business Unit  
H-3581 Tiszaújváros,  
P.O. Box: 20  
Hungary  
**Internet:** <http://www.tvk.hu>  
**E-mail:** [tvkinfo@tvk.hu](mailto:tvkinfo@tvk.hu)

**CUSTOMER SERVICE**

Tiszai Chemical Group Plc.  
Polymer Marketing and Sales  
Customer Service  
H-3581 Tiszaújváros,  
P.O. Box: 20  
Hungary  
**E-mail:** [customerservice@tvk.hu](mailto:customerservice@tvk.hu)

**Customer service for PE**

**Telephone:** + 36 49 521-367, + 36-80 204-249,  
**Fax:** + 36 49 521-186

**Customer service for PP**

**Telephone:** + 36 49 522-013, + 36-80 204-248  
**Fax:** + 36-49 522-865

**SALES ORGANIZATION**

Tiszai Chemical Group Plc.  
Polymer Marketing and Sales  
Sales Department  
H-3581 Tiszaújváros,  
P.O. Box: 20  
Hungary  
**Telephone:** +36 49 521-355  
**Fax:** +36 49 522-410  
**E-mail:** [polymersales@tvk.hu](mailto:polymersales@tvk.hu)

TIPELIN TIPOLEN TIPPLEN TATREN BRALEN

The joint product portfolio of TVK and Slovnaft provide infinite opportunities

**MEMBERS OF THE MOL GROUP**



**TVK Inter-Chemol GmbH.**  
Felnerstrasse 5.  
D-60322 Frankfurt am Main  
Germany  
**Telephone:** +49 69 154 04 12  
**Fax:** +49 69 154 04 41  
**E-mail:** [gaboragoston@tvkic.de](mailto:gaboragoston@tvkic.de)

**TVK Italia S.r.L.**  
Via P. Teulíe 1.  
20136 Milano  
Italy  
**Telephone:** +39 02 58 30 5523  
**Fax:** +39 02 58 30 3492  
**E-mail:** [tvkitaly@energy.it](mailto:tvkitaly@energy.it)

**TVK-France**  
182, avenue Charles DeGaulle  
F-92200 Neuilly-sur-Seine  
France  
**Telephone:** +33 14 745 63 60  
**Fax:** +33 14 745 45 10  
**E-mail:** [kacsandi@free.fr](mailto:kacsandi@free.fr)

**TVK UK Ltd.**  
707 High Road, North Finchley  
London N12 0BT  
Great-Britain  
**Telephone:** +44-020/8369 5650  
**Fax:** +44-020/8369 5656  
**E-mail:** [dios@tvkuk.com](mailto:dios@tvkuk.com)

**TVK Ukraine**  
04073 Kiev  
pr. Moskovsky, 6  
**Telephone:** +380 44 4683261  
**Fax:** +380 44 4681562  
**E-mail:** [office@tvkukraine.eu](mailto:office@tvkukraine.eu)

**TVK Polska Sp.z.o.o.**  
ul. Wawozowa 23/12  
PL-02-796 Warszawa  
Poland  
**Telephone:** +48 22 648 17 95  
**Fax:** +48 22 648 67 94  
**E-mail:** [tvkpolska@tvkpolska.pl](mailto:tvkpolska@tvkpolska.pl)

**MOL- Austria Handels GmbH.**  
Gartenbaupromenade 2/6  
A-1010 Wien  
Austria  
**Telephone:** +43 1 515 991 120  
**Fax:** +43 1 513 37 55 1120  
**E-mail:** [j.hauk@mol-vie.com](mailto:j.hauk@mol-vie.com)

**MOL GROUP Moscow**  
Representative Office TVK  
RU-115054 Moscow  
Kosmodamianskaya Naberezhnaya  
D.52 Strojenie 3  
**Telephone:** +7 495 363 39 55  
**Fax:** +7 495 363 39 46  
**E-mail:** [jhanko@rus.mol.hu](mailto:jhanko@rus.mol.hu)  
[ikuskova@rus.mol.hu](mailto:ikuskova@rus.mol.hu)

**SC. MOL Romania P.P. SRL**  
Str. Danielopolu 4-6  
ET2 Sector 1 Cod, 014 134  
Bucuresti, Romania  
**Telephone:** +40 21 204 85 00  
+40 21 204 85 02  
**Fax:** +40 21 232 1059  
**E-mail:** [ematei@molromania.ro](mailto:ematei@molromania.ro)

March 2008

TIPELIN TIPOLEN TIPPLEN TATREN BRALEN

The joint product portfolio of TVK and Slovnaft provide infinite opportunities

MEMBERS OF THE MOL GROUP

