

# TECHNICAL DATA SHEET

## POLYPROPYLENE TIPPLEN R 959 A

### Random copolymer for injection moulding

TIPELIN / TIPOLEN / TIPPLEN / TATREN / BRALEN

The joint product portfolio of TVK and SLOVNAFT provides infinite opportunities

#### DESCRIPTION

**TIPPLEN R 959 A** is a reactor grade random copolymer polypropylene for injection moulding applications. The product formulated with special nucleating and optical whitener agent with excellent transparency and gloss. This improved reactor grade has very narrow MWD which provide good dimensional stability, low warpage, excellent smell/odor and organoleptic behaviors. This grade contains nucleating and antistatic agent. **TIPPLEN R 959 A** is suitable for replacement of PVC, PS or PET.

#### APPLICATIONS

**TIPPLEN R 959 A** is recommended for injection moulding for the production of household articles, containers and thin-walled packaging for cosmetics, toiletries, herbs, confectionery, where the higher gas-permeability is no problem. It is applicable for injection moulding of transparent food containers, which can use in microwave oven.

**TIPPLEN R 959 A** is suitable for food contact. The product complies with Food Contact and Toy Safety Regulations.

#### PROPERTIES

	Test method	Unit	Typical value
MFR (230 °C /2.16 kg)	ISO 1133-1	g/10 min	45
Flexural Modulus *	ISO 178	MPa	1050
Modulus of Elasticity in Tension *	ISO 527-1,2	MPa	1000
Tensile Strength at Yield *	ISO 527-1,2	MPa	30
Tensile Strain at Yield *	ISO 527-1,2	%	12
Izod Impact Strength (notched, 23 °C) *	ISO 180/A	kJ/m <sup>2</sup>	3.5
HDT (0.45 MPa) *	ISO 75-1,2	°C	84
Rockwell Hardness *	ISO 2039/2	R scale	80
Haze**	ISO 14782	%	8.5

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.

\*\* Measured on specimen with 1 mm wallthickness

#### PROCESSING

**TIPPLEN R 959 A** can be used in conventional injection moulding machines.

Recommended processing temperature 185 – 230 °C.

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## STORAGE AND HANDLING

Pellets are packed in 25 kg PE-LD bags and transported on stretch or shrink-wrapped pallets at eligible load of polymer 1375 kg. Heat treated pallets are available as well. We use adhesive between the bags in order to avoid their slipping. Pay attention to this fact during the removing of the bags from the pallets. The preferred method is to lift the bag at first without rotation. Transportation in a road silo or rail silo is also available. For more detailed information please contact SLOVNAFT and TVK sales representative.

Since polypropylene is a combustible substance, the fire safety rules applicable for combustible materials in warehouses and store rooms should be observed.

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 and temperatures above 40°C. Producer does not take responsibility for any damages caused by adverse storage.

## REACH STATEMENT

Polymers are exempt of REACH registration. However, their raw materials which mean monomers and relevant additives have been registered. TVK Plc. is committed to fully respect legislation and will only use REACH compliant raw materials. At this point in time PP TIPPLEN does not contain any substances specifically identified as SVHC at levels greater than 0.1%.

## SAFETY

See MSDS.

## RECYCLING

Polypropylene resins are suitable for recycling using modern recycling methods. In-house production waste should be kept clean to facilitate direct recycling.

## 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 informational 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.

The REACH statement herein does not constitute legal advice. The REACH statement is provided for informational purpose only.

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**MANUFACTURER**

**TVK Plc.**

H-3581 Tiszaújváros,

P.O. Box: 20

Hungary

Internet: [www.tvk.hu](http://www.tvk.hu)

E-mail: [tvkinfo@tvk.hu](mailto:tvkinfo@tvk.hu)

**TECHNICAL SERVICE**

**TVK Plc.**

Polymers Marketing and Sales

Polymer Technical Service

Telephone: +36 49 522 607; +36 80 204 249

+36 49 521 540; +36 80 204 248

Fax: +36 49 886 491

E-mail: [customerservice@tvk.hu](mailto:customerservice@tvk.hu)

**SALES ORGANIZATION**

**SLOVNAFT, a.s.**

Polymer Sales

Vlčie hrdlo 1

824 12 Bratislava

Slovak Republic

Telephone: + 421 2 5859 7515

+ 421 2 5859 7741

+ 421 2 5859 7231

E-mail: [polymersales@slovnaft.sk](mailto:polymersales@slovnaft.sk)

**TVK Plc.**

H-3581 Tiszaújváros,

P.O. Box: 20

Hungary

Telephone: +36 49 521 355

Fax: +36 49 886 491

E-mail: [polymersales@tvk.hu](mailto:polymersales@tvk.hu)

**MOL Germany GmbH.**

Im Trutz Frankfurt 49

D-60322 Frankfurt am Main

Germany

Telephone: +49 69 154 04 0

Fax: +49 69 154 04 41

E-mail: [polymersales@molgermany.de](mailto:polymersales@molgermany.de)

**MOL- Austria Handels GmbH.**

Walcherstrasse 11A, 7. Stock

A-1020 Wien

Austria

Telephone: +43 1 211 20 1120

Fax: +43 1 211 20 1198

E-mail: [JHauk@molaustria.at](mailto:JHauk@molaustria.at)

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**TVK Italia S.r.l.**

Via Teulié, 1  
20136 Milano  
Italy  
Telephone: +39 02 58 30 5523  
Fax: +39 02 58 30 3492  
E-mail: [tvkitaly@it.tvk.eu](mailto:tvkitaly@it.tvk.eu)

**French Liaison Representative**

Paris  
France  
Mobile Phone: + 33 7 89 86 10 64  
Telephone: + 33 1 64 32 44 17  
E-mail: [husson.iren@fr.tvk.eu](mailto:husson.iren@fr.tvk.eu)

**MOL Ukraine LLC**

04655 Kiev  
Moskovskiy ave, 23, 7th floor  
Ukraine  
Telephone: +380 44 374 00 80  
+380 67 463 58 69  
Fax: +380 44 374 00 90  
E-mail: [JZavojko@mol-ukraine.com.ua](mailto:JZavojko@mol-ukraine.com.ua)

**SLOVNAFT Polska S.A.**

**PetChem Department**  
ul. Wąwozowa 23/12  
PL 02-796 Warszawa  
Poland  
Telephone: +48 22 545 70 70  
Fax: +48 22 545 70 60  
E-mail: [petchem@slovnaft.pl](mailto:petchem@slovnaft.pl)

**TIFON d.o.o.**

Savska cesta 41/XIII  
HR – 10000 Zagreb  
Croatia  
Telephone: +385 1 6160 600  
Fax: +385 1 6160 601  
E-mail: [polymersales@tifon.hr](mailto:polymersales@tifon.hr)

**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 10 59  
E-mail: [petchem@molromania.ro](mailto:petchem@molromania.ro)

**Other European Countries**

Telephone: +36 49 521 355  
+36 70 458 4563  
+36 70 373 9209  
Fax: +36 49 886 491  
E-mail: [polymersales@tvk.hu](mailto:polymersales@tvk.hu)