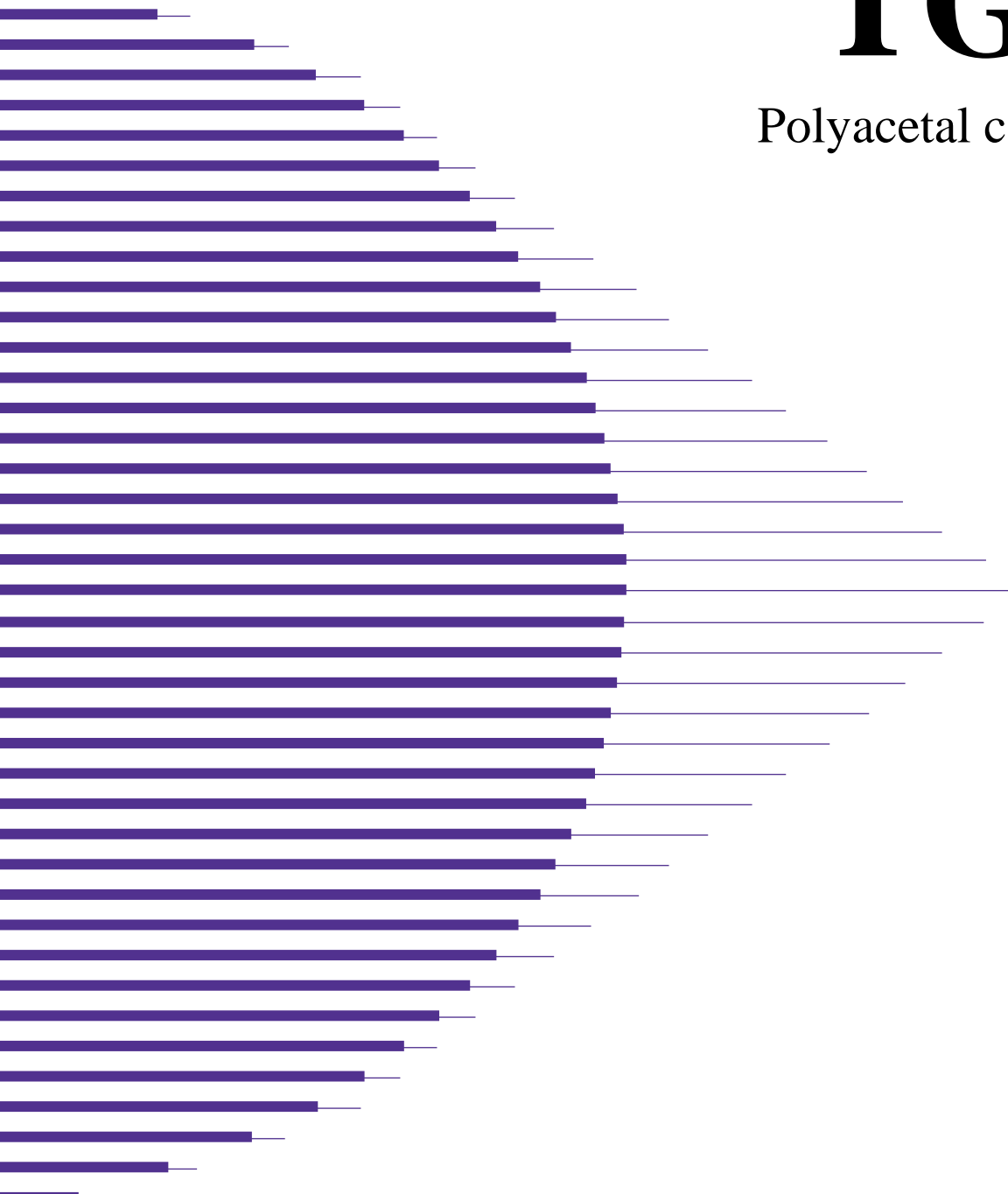


Dupital[®]

TG30

Polyacetal copolymer



Properties	Test Method	Terms	Units	TG30
Physical properties				
Density	ISO 1183	-	g/cm ³	1.41
Water absorption	-	23degC, 60%RH	%	0.22
Rheological properties				
Melt Mass-flow Rate	ISO 1133	Temperature	g/10min	27
Melt Volume-flow Rate			cm ³ /10min	23
			degC	190
			kg	2.16
Moulding shrinkage (3mmt)	-	MD TD	%	2.0 -
Mechanical properties				
Tensile modulus	ISO 527-1 , 527-2	-	MPa	2900
Yield stress			64	
Yield strain			%	7.5
Nominal strain at break			25	
Stress at break			MPa	-
Strain at break	%	-		
Flexural strength	ISO 178	-	MPa	91
Flexural modulus			2700	
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m ²	150
Charpy notched impact strength		23 degC	kJ/m ²	6.0
Thermal properties				
Melting temperature	ISO 11357-3		degC	166
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa	degC	100
		0.45MPa	156	
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	1.1E-04 1.1E-04
Flammability	UL94	0.8mmt	-	HB equivalence
Electrical properties				
Relative permittivity	IEC 60250	100Hz	-	3.9
		1MHz	-	3.9
Dissipation factor	IEC 60250	100Hz	-	0.002
		1MHz	-	0.007
Volume resistivity	IEC 60093	-	ohm-m	1.E+12
Surface resistivity	IEC 60093	-	ohm	1.E+16
Electric strength	IEC 602431	1mmt	MV/m	32
		3mmt		19
Comparative tracking index	IEC 60112	-	-	600

Typical injection molding conditions

Pre-Drying Condition

Drying is necessary to prevent silver streak and odor problem.

- Drying temperature: 80 – 120°C
- Drying time : >3hrs

Injection Molding Machine

- Screw type : With non-return ring at screw head
- Nozzle shape of cylinder : Open nozzle

Resin replacement, Shut-down and Temporary shut-down

(1) Resin replacement, Shut-down

It is desirable that Iupital TG30 is replaced by polystyrene in the heating cylinder.

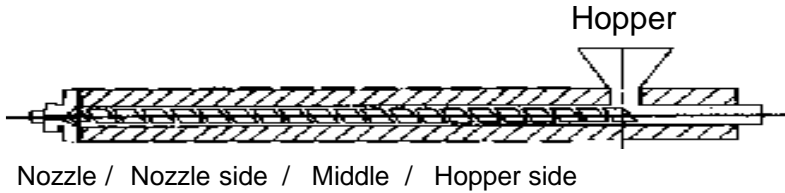
(2) Temporary shut-down

When work is interrupted, it is desirable to purge in the heating cylinder and to keep the temperature of the heating cylinder at 165°C or lower.

Typical injection molding conditions

Molding Condition

(1) Resin Temperature



< Example of setting temperature >

Nozzle	Nozzle side	Middle	Hopper side
185~210°C	190~210°C	180~200°C	170~190°C

Resin temperature of $200 \pm 10^\circ\text{C}$ is recommended.

Over 230°C is not recommended to prevent decomposition.

(2) Mold Temperature

Normally mold temperature of $40 \sim 120^\circ\text{C}$ is recommended, and preferably $60 \sim 80^\circ\text{C}$ is better.

(3) Injection Pressure

Normally 50-100MPa

(4) Screw speed of rotation

Normally 80-120rpm

(5) Back Pressure

Normally 0.5-1.0MPa

Attention point in case of molding trouble

If melted resin is kept in heating cylinder for long times, it is necessary to purge before producing molding articles.

Contact information

<Japan>

> Head Office

9-2, Higashi-Shinbashi 1-chome, Minato-ku, Tokyo 105-0021
PHONE: +81-3-6274-9125 FAX: +81-3-6274-9081

> Osaka Branch

1-18, Kitahama 3-chome, Cyuo-ku, Osaka 541-0041
PHONE: +81-6-6208-4470 FAX: +81-6-6208-4402

> Nagoya Branch

24-20, Meieki Minami 1-chome, Nakamura-ku, Nagoya 450-0003
PHONE: +81-52-565-3910 FAX: +81-52-565-3903

> Kyusyu Business office

12-20, Kamikawabatacyo, Hakata-ku, Fukuoka 812-0026
PHONE: +81-92-281-6777 FAX: +81-92-281-1116

<China>

> MEP Hong Kong Limited

Rm 1501-02, 15th Floor, World Trade Center, 280 Gloucester Road, Causeway Bay, Hong Kong
PHONE: +852-2536-4295 FAX: +852-2868-4718

> MEP Guangzhou Limited

Rm 3311, 33rd Floor, Block B, China Shine Plaza No.3-15, Lin He Xi Road, Guangzhou 510610, China
PHONE: +86-20-8527-6246 FAX: +86-20-8527-2090

> MEP Shanghai Limited

T80, 15F, Shanghai World Financial Center, 100 Century Avenue Pudong New Area, Shanghai 200120, China
PHONE: +86-21-6841-1025 FAX: +86-21-6841-0577

> MEP Shanghai Co., Ltd.

T80, 15F, Shanghai World Financial Center, 100 Century Avenue Pudong New Area, Shanghai 200120, China
PHONE: +86-21-6841-1040 FAX: +86-21-6841-0577

> MEP Shanghai Co., Ltd. Beijing Branch

Rm 715, 7th Floor, Beijing Development Building, No.5, North Rd of East 3rd Ring Rd, Chaoyang District, Beijing 100004, China
PHONE: +86-10-6590-9781 FAX: +86-10-6590-9786

> MEP Shanghai Co., Ltd. Chengdu Branch

Rm 03-A, 16th Floor, Tower 1, Plaza Central, 8 Shuncheng Dajie Chengdu 610016, China
PHONE: +86-28-8672-5033 FAX: +86-28-8672-0876

> MEP Shanghai Co., Ltd. Wuhan Branch

Rm 4418, Tower 1, New World Trade Tower, No. 568 Jianshe Avenue, Jiangnan District, Wuhan 430022, China
PHONE: +86-27-5935-3604 FAX: +86-27-5935-3603

> MEP Shanghai Co., Ltd. Qingdao Branch

Rm 2810, Building 1, Yihe International, NO.10 Xianggangzhong Rd, Qingdao 266071, China
PHONE: +86-532-8502-6502 FAX: +86-532-8502-6531

<Taiwan>

> MEP Taiwan Limited.

5F-1, No.129, Sec.2, Zhongshan N. Road, Zhongshan District Taipei City 104, Taiwan
PHONE: +886-2-2521-2009 FAX: +886-2-2521-2039

<Asia Pacific>

> MEP Singapore Pte., Limited

10 Shenton Way, #11-03/04 Mas Building, Singapore 079117
PHONE: +65-6223-3002 FAX: +65-6223-3920

> MEP Singapore Pte, Ltd. Jakarta Representative Office

Wisma Metropolitan 1, 7th floor, JI Jend Sudirman Kav. 29-31, Jakarta 12920, Indonesia
PHONE: +62-21-522-9669 FAX: +62-21-522-9779

> MEP India Private Limited

301 3rd Floor, Global Business Park, Tower B, MG Road, Gurgaon 122002, India
PHONE: +91-124-496-6222 FAX: +91-124-496-6200

> MEP India Private Limited Chennai Office

The Executive Center, Unit No.35, Level 5, North Block, Tamarai Tech Park, S.P.Plot No.16-19 & 20A, Thiru Vi Ka Industrial Estate, Inner Ring Road, Guindy, Chennai 600032 India
PHONE: +91-44-66936806 FAX: +91-44-66936694

> MEP Engineering-Plastics (Thailand) Co., Ltd.

Emporium Tower, Floor 24/4-7, 622 Sukhumvit Road, Klongton Klongtoey, Bangkok 10110, Thailand
PHONE: +66-2-261-9260 FAX: +66-2-261-9284

<U.S.A>

> MEP America, Inc.

420 Lexington Avenue, Suite 219 New York, NY 10170, U.S.A.
PHONE: +1-212-687-6100 FAX: +1-212-687-6110

> MEP America, Inc. Detroit Office

790 Welch Road, Commerce Township, MI 48390, U.S.A.
PHONE: +1-248-669-6418 FAX: +1-248-669-6419

> MEP America, Inc. San Diego Office

662 Encinitas Blvd. Suite 216, Encinitas, CA 92024, USA
PHONE: +1-949-922-8869 E-mail: jeff_lowe@m-chem.com

<Europe>

> MEP Europe GmbH

Willstatterstr.30, 40549, Duesseldorf, Germany
PHONE: +49-211-520542-0 FAX: +49-211-520542-72

Contact information

<Technical Center>

> Hiratsuka Technical Center, Japan

6-2, Higashiyawata 5-chome, Hiratsuka, Kanagawa 254-0016
PHONE: +81-463-21-8610 FAX: +81-463-21-8631

> MEP Technical Center Asia Ltd.

700/458 Moo 7, Amata Nakorn Industrial Estate, Tambol
Donhuaroh Amphur Muangchonburi, Chonburi 20000,
Thailand
PHONE: +66-38-717-062/063 FAX: +66-38-450-080

> MEP Shanghai Customer Support Center

T80, 15F, Shanghai World Financial Center, 100 Century
Avenue Pudong New Area, Shanghai 200120, China
PHONE: +86-21-6841-1025 FAX: +86-21-6841-0577

> MEP Technical center china

55 Muhua Road, SCIP, Shanghai 201507, China
PHONE: +86-21-3127-3366 FAX: +86-21-3127-5775

> MEP Europe B.V.

Technical Center at Chemelot Site, Gate 2, Building 82
Urmonderbaan 22, 6167 RD Geleen, The Netherlands
PHONE: +31-46-702-2046 FAX: +31-46-41-06999

Homepage <http://www.m-ep.co.jp/mep-en/>

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