

Polyacetal (POM)

DURACON®

M450S

CF2001/CD3069

(Standard grade)

POLYPLASTICS CO., LTD.

General Properties of M450S

table1-1 General Properties (ISO)

Item	Unit	Test Method	Standard
			M450S
			Super High Flow, Fast Molding Cycle
Color			CF2001/CD3069
ISO(JIS)quality-of-the-material display:		ISO11469 (JIS K6999)	>POM<
Density	g/cm³	ISO 1183	1.41
Water absorption (23℃,24hrs)	%	ISO 62	0.6
Tensile strength	MPa	ISO 527-1,2	63
Strain at break	%	ISO 527-1,2	27※1
Flexural strength	MPa	ISO 178	89
Flexural modulus	MPa	ISO 178	2,550
Charpy impact strength (notched)	kJ/m²	ISO 179/1eA	5
Temperature of deflection under load (1.8MPa)	℃	ISO 75-1,2	100
Coefficient of linear thermal expansion (23 - 55℃、Flow direction)	x10 ⁻⁵ /℃	Our standard	11
Coefficient of linear thermal expansion (23 - 55℃、Transverse direction)	x10 ⁻⁵ /℃	Our standard	11
Dielectric breakdown strength (3mmt)	kV/mm	IEC 60243-1	19
Volume resistivity	Ω・cm	IEC 60093	1 × 10 ¹⁴
Surface resistivity	Ω	IEC 60093	1 × 10 ¹⁶
Volume resistivity (Our standard)	Ω・cm		-
Surface resistivity (Our standard)	Ω		-
Rockwell hardness	M(Scale)	ISO2039-2	80
Specific wear amount (vs C-Steel, material side, pressure 0.49MPa, 30cm/s)	x10 ⁻³ mm³/(N・km)	JIS K7218	-
Specific wear amount (vs C-Steel, steel side, pressure 0.49MPa, 30cm/s)	x10 ⁻³ mm³/(N・km)	JIS K7218	-
Coefficient of Dynamic Friction (vs C-Steel, pressure 0.49MPa, 30cm/s)		JIS K7218	-
Specific wear amount (vs C-Steel, material side, pressure 0.98MPa, 30cm/s)	x10 ⁻³ mm³/(N・km)	JIS K7218	0.20
Specific wear amount (vs C-Steel, steel side, pressure 0.98MPa, 30cm/s)	x10 ⁻³ mm³/(N・km)	JIS K7218	0.01>
Coefficient of Dynamic Friction (vs C-Steel, pressure 0.98MPa, 30cm/s)		JIS K7218	0.23
Specific wear amount (vs M90-44, material side, pressure 0.06MPa, 15cm/s)	x10 ⁻³ mm³/(N・km)	JIS K7218	-



Item	Unit	Test Method	Standard
			M450S
			Super High Flow, Fast Molding Cycle
Specific wear amount (vs M90-44, M90-44 side, pressure 0.06MPa, 15cm/s)	$\times 10^{-3} \text{mm}^3/(\text{N} \cdot \text{km})$	JIS K7218	-
Coefficient of Dynamic Friction (vs M90-44, pressure 0.06MPa, 15cm/s)		JIS K7218	0.37
Flammability		UL94	HB
The yellow card File No.			E45034
Appropriate List number of Ministerial Ordinance for Export Trade Control			Item 16 of Appendix -1

※1) Nominal strain at break

All figures in the table are the typical values of the material and not the minimum values of the material specifications.



NOTES TO USERS

- All property values shown in this brochure are the typical values obtained under varying conditions prescribed by applicable standards and test methods.
- This brochure has been prepared based on our own experiences and laboratory test data, and therefore all data shown here are not always applicable to parts used under different conditions. We do not guarantee that these data are directly applicable to the application conditions of users and we ask each user to make his own decision on the application.
- It is the users' responsibility to investigate patent rights, service life and potentiality of applications introduced in this brochure. Materials we supply are not intended for the implant applications in the medical and dental fields, and therefore are not recommended for such uses.
- For all works done properly, it is advised to refer to the appropriate "Technical Catalog" for specific material processing.
- For safe handling of materials we supply, it is advised to refer to the Safety Data Sheet "SDS" of the proper material.
- This brochure is edited based on reference literatures, information and data currently available to us. So the contents of this brochure are subject to change without notice due to new data.
- Please contact our office for any questions about products we supply, descriptive literatures or any description in this brochure.

DURACON® is a registered trademark of Polyplastics Co., Ltd. in Japan and other countries.

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