

# PROPERTIES OF PLASTIC MATERIALS

		Modified Polyether PPE (PPO)					Polyamide PA		Poly-carbonate
		PPE + PS		PA 6x	PA 6x	PC			
		Noryl unreinforced	Noryl reinforced		reinforced				
<i>Abbreviation</i> →									
<i>Tradename</i> →									
APPLICATION FOR THE FOLLOWING PRODUCT GROUPS	Abbreviation of product groups, see below this page		NEG type A	NEG type B	MG Cable glands	Handle bar	RB, DT (transparent cover)		
MECHANICAL PROPERTIES	<i>Unit</i>	<i>Testmethod</i>							
Impact resistance	KJ/m <sup>2</sup>	ISO 179; DIN 53 453	10		no fracture	30	no fracture		
Notch resistance	KJ/mm <sup>2</sup>	ISO 179; DIN 53 453	12	9	no fracture		30		
Ball indentation hardness	N/mm <sup>2</sup>	DIN 53 456	113	117	120	150	110		
Ball-thrust hardness test at 125°									
THERMAL PROPERTIES	<i>Unit</i>	<i>Testmethod</i>							
Heat distortion temperature	°C	ISO 75-A; DIN 53 458			100	160	128		
Application temperature ca.	°C		100	110	100	110	110		
Cold distortion temperature	°C		-40	-40	-40	-40	-150		
UL combustibility test	Fire classif.	UL-94	V-0	V-1	HB		HB		
ELECTRICAL PROPERTIES	<i>Unit</i>	<i>Testmethod</i>							
Tracking resistance KC/CTI	Stage	IEC 112			600	500	250		
Specific volume resistivity	Ohm · cm	DIN 53 482; VDE 0303	10 <sup>15</sup>	10 <sup>15</sup>	10 <sup>15</sup>	10 <sup>15</sup>	10 <sup>16</sup>		
RESTISTANCE OF MATERIAL TO*									
Gasoline			-	-	+	+	-		
Diesel oil			-	-	+	+	○		
Sea water			+	+	+	+	+		
Hydrochloric acid, 10%			+	+	-	-	+		
Weak alkaline solutions			+	+	-	-	-		
Strong alkaline solutions			+	+	-	-	-		
Atmospheric influences			○	○	+	+	+		
Lactic acid			+	+	○	○	+		
Acetone			-	-	+	+	-		
Values at room temperature: + = constant ○ = conditionally constant -- = inconstant									
<b>Abbreviation of product groups (catalogue page...):</b>									
DC	Datec-Controls (31-38)	FG	Flat-Pack Cases (169-176)	NEG	DIN-Modular Cases (181-198)	TT	Toptec Cases (165-168)		
DKB	Datec-Keyboards (129-132)	Kombi-PG	Combi Desk Cases (128)	PG	Desk Cases (123-127)	URB	Uni-Resist-Boxes (85-88)		
DMB	Datec-Mobil-Boxes (25-30)	LG	Lux Cases (137-146)	RB	Robust-Boxes (77-84)	VB	Vario-Boxes (47-64)		
DPB	Datec-Pocket-Boxes (19-24)	MB	Hand-Held-Boxes (39-44)	SG	Shell-Type Cases (91-104)	WG	Wall-mounting Cases (65-76)		
DT	Datec-Terminals (111-122)	MG	Potting Boxes (199-202)	SM	Smart-Cases (13-18)				
EG	Euro Cases (147-162)	MOT	Motec Cases (105-110)	StG	Plug Cases (177-180)				

\* Simultaneous exposure to different media may alter the resistive properties of a material! To be safe, it is advisable to test the cases for sufficient resistance of the material under the conditions of the specific application.

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Thermoplasts							Duroplasts	
Blends	Styrene-Polymerides					PMMA		
	Modified Polystyrene			ABS				
ABS/PC	SB	SB	SAN	ABS		PMMA	Polyester	Duropl. type 3I
Bayblend KU-2 1468	Polyflam SDR 101	BP 5400		Novodur P2 MT-AT	Novodur P2 H-AT	ZK30	reinforced	
StG (live parts)	StG (top parts)	SM, TT, FG, SG, MOT, PG 220, Kombi-PG, WG A9624..	WG (cover), VB (cover)	DPB, DMB, DC, MB, DT, TG, DKB, EG, LG, PG 138/190	RB, MG	DPB SM	URB	MG
	20	no fracture	6	85	80	60	60	6
20	6	9		11	11	3	26	1
100	115	115	165	100	115	105		250
fulfilled, 2 mm imprint.								
110	80	80	99	90	85	89	200	125
100	65	65	70	75	70	70	150	100
-50	-40	-40	-40	-40	-40	-40	-60	
V-0	V-2	HB		HB	HB	HB	V-0	V-1
350	450	200	KB 225	600	600	600	450	125
10 <sup>16</sup>	5x10 <sup>15</sup>	10 <sup>16</sup>	10 <sup>16</sup>	10 <sup>15</sup>	10 <sup>15</sup>	2x10 <sup>14</sup>	10 <sup>9</sup>	10 <sup>9</sup>
-	-	-	-	○	○	+	+	+
○	-	-	○	+	+	+	+	+
+	+	+	+	+	+	+	+	+
+	+	+	○	○	○	+	+	+
-	+	+	+	+	+	+	+	+
-	+	+	+	+	+	○	-	○
+	○	○	○	○	○	○	+	+
+	+	+	+	+	+	+	+	+
-	-	-	-	-	-	-	-	+

**Abbreviation of Material:**

ABS Acrylonitrile-Butadiene-Styrene      SB Styrene-Butadiene  
PA Polyamide  
PC Polycarbonate  
PMMA Polymethylmethacrylate  
PPE Polyphenylene-Ether  
SAN Styrene-Acrylonitrile-Copolymeride