

## 4 Appendix and tables

### 4.2.8 Materials of pressure gauges with elastic elements

#### Preferred use of materials for particular pressure gauge components

Component type	Material number or designation					
	Unalloyed or low-alloyed steel	High-alloyed steel	Light metals and their alloys	Copper and wrought copper alloys		Other materials
Tube base		14571		20401		Monel
Measuring element	11520	1.4571		2.0240 2.1030	2.0321 2.1247	Monel, Duratherm Ni Span C, titanium
Separating diaphragm Protecting film coating		1.4571				2.4066; 3.7035; 3.7235 Hastelloy, Monel, Incoloy, Inconel, Ag, Au, Ta, Zr, ECTFE, PTFE, PFA
Thin film Sensors		1.4542				
Casing	1.0035	1.4301	3.2582	2.0401		ABS, PC, PA
Flanges	1.0181 1.0601	1.4057 1.4571 1.4404	1.4435	3.7025		2.4066 Hastelloy, Monel
Movements and their parts		1.4104 1.4301 1.4305		2.0321 2.0380	2.0780 2.0401 2.1030	POM, PTFE
Dial			3.0205			ABS
Pointer bush			3.1645	2.0401		ABS
Pointer arm			3.3535	2.0321		
Window						Safety glass, silicate glass, polyacrylate, polycarbonate,
Seals and similar components						EPDM, EPM, FKM, NBR, PUR, Q

## Designation and standards:

Materials		
No.	Short name	DIN
1.0181	St 42-2	1652
1.0601	C 60	17200
1.1520	C 70 W1	-
1.4104	X 12 Cr Mo S 17	17440
1.4301	X 5 Cr Ni 18 9	17440
1.4305	X 12 Cr Ni S 18 8	17440
1.4571	X 10 Cr Ni Mo Ti 1810	17440
2.0240	Cu Zn 15	17660
2.0321	Cu Zn 37	17660
2.0380	Cu Zn 39 PB 2	17660
2.0401	Cu Zn 39 Pb 3	17660
2.0780	Cu Ni 12 Zn 30 PB	17663
2.1030	Cu Sn 8	17662
2.1247	Cu Be 2	17666
2.4050	Ni 99,8	17740
3.0205	Al 99	1712
3.1645	Al Cu Mg Pb	1725
3.2582	Al Si 12	1725
3.3535	Al Mg 3	1725
3.7035	Titanium	17850

Materials	
Designation	Explanations
Special metal alloys	
Hastelloy	Nickel-molybdenum alloy
Monel	Nickel-copper alloy
Ni Span C	Iron-nickel-alloy with 41 to 43.5 % Ni, 4.9 to 5.575 % Cr, 2.2 to 2.75 % Ti and other small percentages of Al, C, Mn, Si, S and P
Nonmetallic materials	
ABS	Acrylo-nitrile-butadiene-styrene DIN 16722 Trademark e.g. Terluran
E-CTFE	Ethylen-chlorotrifluoroethylene Trademark e.g. Halar
PC	Polycarbonate DIM 7744; VDI/VDE 2475 Trademark e.g. Makrolon
PFA	Perfluoralkoxy-copolymer Trademark e.g. Teflon PFA
PMMA	Polyacrylate, DIN 7745 Trademark e.g. Plexiglas
POM	Polyoxymethylene, VDI/VDE 2477 Trademark e.g. Ultraform
PTFE	Polytetrafluoroethylene, VDI/VDE 2480 Trademark e.g. Teflon
Silicate glass	Window glass, DIN 1249
Safety glass	Multilayer safety glass