

**Renishaw plc**  
 Stone Business Park  
 Brooms Road, Stone  
 Staffordshire ST15 0SH  
 United Kingdom

T +44 (0) 1785 285000  
 F +44 (0) 1785 285001  
 E additive@renishaw.com  
 www.renishaw.com

**Renishaw GmbH**  
 Karl-Benz-Straße 12  
 72124 Pliezhausen  
 Deutschland

T +49 7127 9810  
 F +49 7127 88237  
 E germany@renishaw.com  
 www.renishaw.de

**Renishaw Inc**  
 5277 Trillium Blvd  
 Hoffman Estates IL 60192  
 United States

T +1 847 286 9953  
 F +1 847 286 9974  
 E usa@renishaw.com  
 www.renishaw.com

**Renishaw S.A.S.**  
 15 rue Albert Einstein  
 Champs sur Marne, 77447  
 Marne la Vallée, Cedex 2  
 France

T +44 (0) 1785 285000  
 F +44 (0) 1785 285001  
 E france@renishaw.com  
 www.renishaw.fr

**Renishaw S.p.A.**  
 Via dei Prati 5,  
 10044 Pianezza  
 Torino, Italia

T +39 011 966 10 52  
 F +39 011 966 40 83  
 E italy@renishaw.com  
 www.renishaw.it



## Renishaw vacuum casting resins and silicone rubbers

### Renishaw vacuum casting resins

### Renishaw silicone rubbers

TEST TYPE / ISO		8020-1	8020-2	3165	3175	9070	6130	8040	8045	8045-1	8045-2	8045-3	8060-1	8060-2	8060-3	SG-95	8051	8052	5170	5171	5175	6230	3116	3176	8263 - UL94 5VA	9012	6091	420	VTV 740	VTV 750	VTV 800	VTV 950	VTN 6000	VTN 6001				
Description		-	Soft rubber	Soft rubber	Medium rubber	Medium rubber	Hard rubber	PP	PP	PP/PE	PP/PE	PE	PP/PE	PP/PE	PP/PE	ABS	ABS/ Polycarb	ABS/ Polycarb	ABS/HT	ABS/HT	Polycarb	ABS	ABS	ABS	ABS	ABS	Polycarb	PP/ABS										
Properties:																																						
Soft			•	•	•	•	•																															
Semi rigid								•	•	•	•	•																										
Rigid													•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•										
High temp.													•	•	•	•	•	•	•	•	•	•	•	•	•	•	•											
UV stable																											•											
FDA																																						
Others																				•						•	•											
Product colour at 25 °C		-	Slightly yellow / transparent		White / opaque		Colourless / transparent	White / translucent	White / opaque	White / translucent	White / translucent			Slightly yellow / translucent			Colourless / transparent	White / opaque		Amber / opaque	Amber / opaque	Transparent	White / opaque	White / translucent		White translucent		Colourless / transparent	White translucent	Translucent	Transparent							
Hardness (Shore A/D)		868	50 A	60 A	65 A	75 A	70 A	90 A	70 D	74 D	70 D	61 D	48 D	80 D	80 D	80 D	82 D	84 D	83 D	80 D	70D	80 D	83 D	75 D	75 D	83 D	77 D	81 D	75 D	40 A	40 A	40 A	40 A	42 A	38 A			
Flexural strength (MPa)		178	-	-	-	-	68	-	42	-	-	-	60	48	64	88.6	85.9	93	103	44	-	80	68	68	93	51	101	40	-	-	-	-	-	-				
Flexural modulus (MPa)		178	-	-	-	-	2460	-	1050	-	-	-	1310	1010	1320	2195	1965	2000	2245	1032	2379	1800	1750	1750	2200	1310	2835	1020	-	-	-	-	-	-				
Tensile modulus (MPa)		R 527	3	8	2.1	3.5	-	64.1	942	970	700	400	150	1225	-	-	2521	2150	1710	-	-	1827	1850	-	-	-	-	2220	-	-	-	-	-	-				
Tensile strength (MPa)		R 527	5	6	11	12	4.3	16.5	27	32	24	12	10	47	-	-	54	55.9	57	72	28	-	67	51	51	68	40	58.9	30	6.5	6.5	5.5	6.7	-	-			
Heat deflection temp °C (HDT)		-	-	-	-	-	-	65	79	53	42	35	105 - 175	90 - 110	115 - 180	72	92	91	130	110	95	98	90	95	80	90	75	68	-	-	-	-	-	-				
Glass transition temp °C (Tg)		-	-	-	-	-	-	78	-	-	-	-	127 - 195	105 - 132	125 - 195	84	110	110	-	-	-	115	102	102	-	108	-	80	-	-	-	-	-	-				
Elongation yield (%)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	5	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-				
Elongation at break (%)		R 527	600	200	600	450	225	200	50	55	60	65	75	43	-	-	12	8	20	15	70	8	14	8	8	15	25	11	-	350	325	360	390	330	330			
Tear strength (MPa)		34	11 - 12	11 - 12	32	40	20	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	17	15	27	20	25				
Yield strength (MPa)		R 527	-	-	-	-	-	-	-	-	-	-	-	-	-	64.2	62	-	-	-	-	67	-	-	-	-	69.8	-	-	-	-	-	-	-	-			
Izod impact (kJ/M²)		180	-	-	-	-	-	15	-	-	-	-	14	15	13	7.3	9.8	11	6.4	-	5.9	15	10	10	10	-	7.3	-	-	-	-	-	-	-				
Thermal conductivity (W/mK)		BS 847	0.175	0.175	0.2	0.2	0.198	0.192	0.201	-	-	-	-	-	-	0.208	0.225	0.225	-	-	-	0.241	-	0.2	7	-	0.208	-	-	-	-	-	-	-	-			
Specific gravity (kg/dm³ at 25 °C)		Part A	-	1.03	1.03	1.02	1.02	0.98	1.11	1.05	1.07	1.07	1.07	1.03	1.03	1.03	1.07	1.12	1.10	1.20	1.27	0.54	1.11	1.08	1.08	1.3	1.10	1.10	1.02	1.08	1.09	1.10	1.10	1.08	1.08			
		Part B	-	1.12	1.12	1.2	1.2	1.18	1.17	1.22	1.16	1.16	1.16	1.21	1.21	1.21	1.19	1.19	1.19	1.19	1.23	1.10	1.2	1.24	1.24	1.19	1.12	1.09	1.08	1.00	1.00	1.00	1.00	1.00	1.00			
		Part C	-	-	-	-	-	-	-	-	-	0.99	0.99	0.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Viscosity (cPs at 25 °C)		Part A	-	550	550	1200	1200	1000	400	1200	1000	1000	1000	220	220	220	1300	750	850	1150	200	1300	850	1000	1000	1000	1500	800	80	60000	90000	80000	42000	34000	34000			
		Part B	-	500	500	150	150	160	40	140	220	220	220	50	50	50	130	180	170	1000	1050	450	200	600	600	160	150	160	80	-	-	-	-	-	-			
		Part C	-	-	-	-	-	-	-	-	90	90	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Mixing ratio by weight (A:B:C)		-	100:75	100:90	100:30	100:37	100:50	100:100	110:90	100:140	100:140:25	100:140:50	100:140:75	100:400	100:250	100:500	100:150	100:200	100:200	55:100	50:100	57:100	100:200	29:100	29:100	100:150	29:100	100:180	100:100	100:10	100:10	100:10	100:10	100:10	100:10			
Pot life: sec. (100 g at 25 °C)		-	300	300	360	360	240	360	300	345	320	300	270	285	270	330	300	330	180	720	540	360	300	420	360	720	460	300	7200	7200	7200	4800	5400	5400				
Demoulding time (at 70 °C)		-	120	90	45 - 60	90	180	60 - 120	90 - 120	60	60	60	60	60	60	30	45	40	25 - 30	60	60	90	25 - 60	15	24 - 40	60	120	120 - 150	35 - 80	180 - 320	180 - 320	180 - 320	120	180 - 320	180 - 320			
Shrinkage (%) according to wall thickness		-	0.2	0.2	0.3	0.3	0.3	0.2 - 0.6	0.5	-	-	-	0.5	0.5	0.5	0.2	0.2 - 0.3	0.2 - 0.5	0.15	0.2	0.3	0.3	0.2 - 0.5	0.2 - 0.5	0.3	0.5 - 1.0	0.7	0.5 - 1.0	0.1	0.1	0.1	0.1	0.1	0.1				