

## Table of resin properties

1.General							
1) Grade		SCR701	SCR710	SCR735	SCR740	SCR11120	
2) Material type		Epoxy	Epoxy	Epoxy	Epoxy	Epoxy	
3) Equipment model		SCS-2000, others	SCS-2000, others	SCS-8000, others	SCS-8000, others	SCS-8000, others	
4) Laser		Ar/solid-state	Ar/solid-state	Solid-state	Solid-state	Solid-state	
5) Characteristics		General use, moisture resistant	High toughness	High heat resistance, high toughness	Ultra-high heat resistance	Crystal clear	
6) Post-cure		Not needed	Not needed	Not needed /or heating	Heating	Not needed	
2.Liquid resin properties							
1) Threshold exposure: Ec	mJ/cm <sup>2</sup>	33	13	23	16	12	
2) Penetration depth: Dp	μm	191	135	160	120	160	
3) Viscosity (25°C)	Pa·s	0.34	0.5	0.47	0.43	0.26(30°C)	
4) Density(25°C)	g/cm <sup>3</sup>	1.13	1.19	1.13	1.13	1.12	
3.Physical properties of hardened substance (after post-cure for types that require it.)							
1) Tensile strength	MPa	75	66	non-postcure 45	postcure 67	62	47
2) Young's modulus	MPa	3300	2700	2510	2720	3000	2650
3) Elongation at break	%	6	10	6.8	6.0	3	20
4) Flexural strength	MPa	104	85	83	97	110	63
5) Flexural modulus	MPa	3100	2500	2530	2570	2800	2040
6) Izod impact strength	J/m	25~27	32~38	29~33	34~39	29	30
7) Hardness (durometer D)		87	81				81
8) Self-tapping property		×	◎	◎	○		◎
9) HDT (heavy load) *Glass transition temp. (Measurement method)		HDT=53°C Tg=82°C (DMA)	HDT=49°C Tg=78°C (DMA)	HDT=48°C Tg=90°C	HDT=85°C Tg=110°C	HDT=100°C Tg=135°C	HDT=46°C Tg=43°C
4.Other							
1) Safety	Hazard	Non-hazardous substance Deleterious substance	Non-hazardous substance Deleterious substance	Non-hazardous substance Deleterious substance	Non-hazardous substance Deleterious substance	(Class 3, No. 4 mineral) Deleterious substance	
2) Remarks							

This information contained herein is given in good faith but without any guarantee or warranty and may involve proprietary rights of third parties. Our advice given in this information does not release you from the obligation to check its validity and to test our products as to their suitability for the intended process and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely on your own responsibility. Our products are sold in accordance with Product Specification separately issued by us.

## Table of resin properties

1.General						
1) Grade		SCR751	SCR950	SCR9100	SCR9120	SCR802
2) Material type		Epoxy	Oxycetane	Epoxy	Epoxy	Epoxy
3) Equipment model		SCS-1000HD	SCS-1000HD	SCS-8000, others	SCS-8000, others	SCS-2000, others
4) Laser		He-Cd	He-Cd	Solid-state	Solid-state	Ar/solid-state
5) Characteristics		General use, moisture resistant	High sensitivity, high toughness	Ultra-high toughness	Ultra-high toughness	For direct mold
6) Post-cure		Not needed	Not needed	Not needed	Not needed	Heating
2.Liquid resin properties						
1) Threshold exposure: Ec	mJ/cm <sup>2</sup>	20	5	6.8	10.9	9
2) Penetration depth: Dp	μm	139	79	130	140	152
3) Viscosity (25°C)	Pa·s	0.36	0.59	0.56 (30°C)	0.45 (30°C)	4.8
4) Density (25°C)	g/cm <sup>3</sup>	1.13	1.10	1.11	1.13	1.59
3.Physical properties of hardened substance (after post-cure for types that require it.)						
1) Tensile strength	MPa	80	51	28~32	30~32	85
2) Young's modulus	MPa	3400	2000	1100~1400	1200~1500	9200
3) Elongation at break	%	5	8	14~17	15~25	2
4) Flexural strength	MPa	115	75	42~62	41~46	120
5) Flexural modulus	MPa	3300	2600	1200~1500	1300~1500	8900
6) Izod impact strength	J/m			32~43	48~53	
7) Hardness (durometer D)		88	85			92
8) Self-tapping property			◎	◎	◎	
9) HDT (heavy load) *Glass transition temp. (Measurement method)		HDT=56°C Tg=108°C (DMA)	HDT=64°C Tg=121°C (DMA)	HDT=60~65°C —	HDT=52~61°C —	HDT=~250°C Tg=133°C (DMA)
4.Other						
1) Safety	Hazard	Non-hazardous substance Deleterious substance	(Class 3, No. 4 mineral) Deleterious substance	(Class 3, No. 4 mineral) Deleterious substance	(Class 3, No. 4 mineral) Deleterious substance	Non-hazardous substance Deleterious substance
2) Remarks						

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