

Tooling



Biresin[®] Vacuum Casting systems



The New Product Range of Biresin® Vacuum Casting systems



Application:

- Fast and cost-effective production of high-quality prototypes and short run parts.
- Simulation of materials as used in serial production (like rubber, soft-PVC, polyethylene, polypropylene, ABS, PVC and others) in stage of development and preproduction for automotive industry, consumer goods and other technical parts.
- Processing by easy hand casting or by means of vacuum casting equipment.

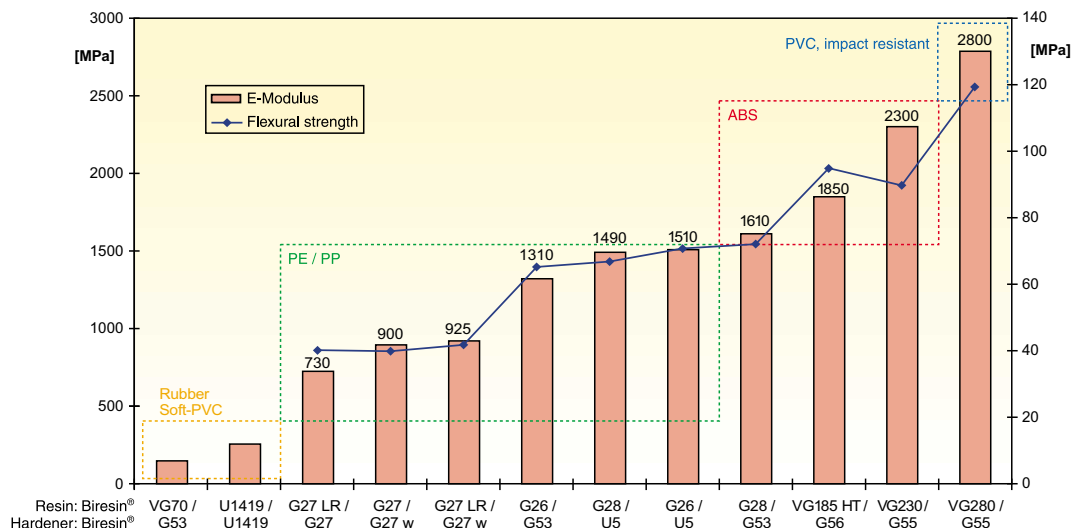
Range of application:

- Modular assembly system with universal hardeners offers a wide range of E-Moduli and further characteristics.
- Biresin® VG70 and Biresin® U1419: Flexible systems with good elongation characteristics.
- The fast setting fastcast resins with special hardeners present high-quality materials with an excellent price-performance ratio in this E-modulus area of PE, PP and ABS.
- Biresin® VG185 HT in use for impact resistant ABS-housings of high heat resistance.
- Biresin® VG230 and Biresin® VG280 excel by higher stiffness and strength at simultaneously high impact resistance. Adding of Biresin® G48 resin extends the potlife.



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New Basic Range - Overview





Resin (A)	Biresin®	VG70	U1419	G27 LR		G27	G26		G28		VG185 HT	VG230	VG280
Hardener(B)	Biresin®	G53	U1419	G27 be	G27 we	G27 we	G53	U5	U5	G53	G56	G55	G55
Colour		black	yellowish transp.	beige	white	white	beige	beige	beige	beige	black	yellowish transp.	yellowish transp.
Application		PVC-P rubber	PVC-P rubber	PE/PP	PE/PP	PE/PP	PE/PP	PE/PP	PE/PP	ABS	ABS	ABS	PVC impact resistant
Characteristics		very flexible	high tear strength, high rebound elasticity	very good flowability, high elasticity	very good flowability, very impact resistant	fast RT-curing, very impact resistant	fast RT-curing, heat resistant	fast RT-curing, heat resistant	good strength and heat resistance	good strength and heat resistance	very heat resistant, impact resistant	stiff, very impact resistant	very stiff, high strength and impact resistance
Processing data (approx. values)													
Mixing ratio pbw	Resin Hardener	100 18	100 16	100 100	100 100	100 100	100 75	100 67	100 67	100 75	80 100	90 100	80 100
Mixing viscosity	[mPas]	900	2,700	50	30	30	120	110	120	150	1,500	900	600
Pottlife	[min]	6	6-7	4-5	4-5	2'15"	2	1'40"	4	5	6-7	4	4
Demoulding time	[min]	45-60*	> 60*	60-90	60-90	> 15	> 20	> 20	60-90	60-90	> 45*	60*	60-90*
Physical data (approx. values)													
Shore hardness		A 70	A 100 (D 54)	D 70	D70	D70	D75	D71	D79	D 79	D 83	D 82	D 84
E-modulus	[MPa]	-	-	730	925	900	1310	1510	1490	1610	1850	2300	2800
Tear strength	[N/mm]	9	68										
Flexural strength	[MPa]			40	40	42	65	71	67	72	95	90	120
Elongation at break	[%]	200	375										
Impact resistance	[kJ/m²]			40	70	60	30	25	25	25	50	> 100	> 100
HDT ISO 75B	[°C]	-	-	75	70	75	95*	104*	102*	95*	120*	70	80

*after appropriate thermal treatment



Sika Deutschland GmbH
Stuttgarter Str. 139
D-72574 Bad Urach
Germany
Phone: +49(0) 71 25 940 492
Fax: +49(0) 71 25 940 482
e-mail: tooling@de.sika.com
www.sika-tooling.com
www.sika.de

