EN

Product Information

Elan-tech ®

PC 39/G 226
100:100 by weight

PC 39/G 226/EF 35P - ALOLT 1
100:100:300 by weight

ELANTAS EUROPE Sales offices:
Strada Antolini n°1 loc. Lemignano
43044 Collecchio (PR)
Italy
Tel +39 0521 304777
Fax +39 0521 804410

Grossmannstr. 105
20539 Hamburg
Germany
Tel +49 40 78946 0
Fax +49 40 78946 349

info.elantas.europe@altana.com
www.elantas.com

Resin	Hardener	Filler	Mixing ratio by weight
PC 39	**G 226**	**EF 35 P - ALOLT 1**	**100:100:300**

Applications: Large size models, matrices and negatives.

Processing: Face and solid casting also at high thickness using the filled product. The greater the filler loading the lower the shrinkage. Attention: homogenize the resin before use (follow the instructions).

Description: Two component system. The filler can be added in the suggested ratio or in a different ratio depending on the application and on the required thickness. Very high quality of reproduction. Moderate curing time. Low exothermic peak. Low shrinkage. The use of EF 31 filler (mix ratio 100:100:150) allows production of components with lower specific weight.

SYSTEM SPECIFICATIONS

Resin

Viscosity at:	25°C	IO-10-50 (EN13702-2)	mPas	90	140
Gelation time	25°C 100ml	IO-10-52a (UNI 8701)	min	14	20

Hardener

NCO groups		IO-10-55	% peso	18,50	20,00

TYPICAL SYSTEM CHARACTERISTICS

Resin

Resin Colour				Natural white	
Density at: 25°C		IO-10-51 (ASTM D 1475)	g/ml	1,00	1,04

Hardener

Hardener Colour				Pale yellow	
Viscosity at: 25°C		IO-10-50 (EN13702-2)	mPas	55	95
Density at: 25°C		IO-10-51 (ASTM D 1475)	g/ml	1,10	1,12

Processing Data

				A+B	A+B+C
Mixing ratio by weight		for 100 g resin	g	100:100	100:100:300
Pot life at:	25°C (3.000 mPas)	IO-10-50 (EN13702-2) (*)	min	13 20	- -
	25°C (15.000 mPas)		min	- -	8 12
Exothermic peak	(40mm;100ml)	IO-10-53 (*)	°C	65 75	40 45
Initial mixture viscosity at:	25°C	IO-10-50 (EN13702-2)	mPas	40 70	2.000 2.800
Demoulding time	25°C (15ml;6mm)	(*)	h	10 12	10 12
Maximum recommended thickness			mm	3 - 7	30 - 70

PC 39/G 226/EF 35P - ALOLT 1

TYPICAL CURED SYSTEM PROPERTIES

Properties determined on specimens cured: 24 h TA + 15 h 60°C

			A+B		A+B+C	
Colour			White		White	
Machinability			Excellent		Excellent	
Density 25°C	IO-10-54 (ASTM D 792)	g/ml	1,04	1,08	1,59	1,63
Hardness 25°C	IO-10-58 (ASTM D 2240)	Shore D/15	73	77	77	81
Glass transition (Tg)	IO-10-69 (ASTM D 3418)	°C	75	80	75	80
Linear shrinkage	IO-10-74 a	‰	2,70	2,85	1,25	1,30
Flexural strength	IO-10-66 (ASTM D 790)	MN/m²	38	45	33	40
Maximum strain	IO-10-66 (ASTM D 790)	%	5,0	7,5	1,0	2,0
Strain at break	IO-10-66 (ASTM D 790)	%	5,5	10,0	1,0	2,0
Flexural elastic modulus	IO-10-66 (ASTM D 790)	MN/m²	1.000	1.300	3.600	4.000
Tensile strength	IO-10-63 (ASTM D 638)	MN/m²	23	28	15	22
Elongation at break	IO-10-63 (ASTM D 638)	%	3,0	4,0	0,6	1,0
Compressive strength	IO-10-72 (ASTM D 695)	MN/m²	n.d.	n.d.	38	47

IO-00-00 = Elantas Italia's test method. The correspondent international method is indicated whenever possible.
nd = not determined na = not applicable RT = TA = laboratory room temperature (23±2°C)
Conversion units: 1 mPas = 1 cPs 1MN/m2 = 10 kg/cm2 = 1 MPa

(*) for larger quantities pot life is shorter and exothermic peak increases
(**) the brackets mean optionality
(***) The maximum operating temperature is given on the basis of laboratory information available being it function of the curing conditions used and of the type of coupled materials. For further possible information see post-curing paragraph.

PC 39/G 226/EF 35P - ALOLT 1

Instructions:

In pre-filled products it is good practice to check and carefully rehomogenize the material if some settlement is present. Dose the single components and add the filler to both of them in the appropriate ratio, then mix. It is advisable to put more filler on the hardener side. Mix carefully, then apply quickly. For the surface preparation (mould or model) refer to the release agents data sheet.

Curing Post-curing:

Post curing is always advisable for RT curing systems in order to stabilize the component and to reach the best properties. It is necessary when the component works at a high temperature. Post cure the tool as stated in the table, increasing gradually 10°C/hour. The rate of heating and the indicated post-curing time are referred to standard specimen size. Users should evaluate the best conditions of curing or post-curing depending on the component size and shape. For big size components decrease the thermal gradient and increase the post-curing time. In the case of thin layer applications and composites, post cure on the jig.

Storage:

Polyols and the isocyanate based hardeners can be stored forone year in the original sealed containers stored in a cool, dry place. The hardeners may present an increase in viscosity that does not change the cured system properties. Both components are moisture sensitive therefore it is a good practice to close the vessels immediately after each use. Moisture absorption may cause the expansion of the product during application and/or the hardener may crystallize during storage. The isocyanates may crystallize at low temperatures. To restore the original conditions, heat the material at 70-80°C avoiding local overheating. Before use, the product must be rehomogenized and cooled down at room temperature.

Handling precautions:

Refer to the safety data sheet and comply with regulations relating to industrial health and waste disposal.

emission date:	July	2006/R&S
revision n° 01	September	2007/R&S