Casting Resins
Product Table

What kind of application are you looking at?

	Air		Food / Water	
	Liquid	Thixotropic	Dry substrates	
Solution	**LOCTITE UK 8439-21**	**LOCTITE UK 8180 N**	**LOCTITE CR 3525**	**LOCTITE UK 178 A**
Technology	2K PU	2K PU	2K PU	2K PU
Recommended hardener (Part B)	LOCTITE UK 5400	LOCTITE UK 5400	LOCTITE CR 4200	LOCTITE UK 178 B
Mixed colour	Light beige	Beige	Yellowish	Yellowish
Mix ratio by weight*	5:2	5:3	100:75	1:1
Working life**	4 – 5 min.	4 – 6 min.	20 – 26 min.	40 – 60 min.
Mixture viscosity**	400 – 1,000 mPa·s	Thixotropic	900 – 1,700 mPa·s	18,000 – 30,000 mPa·s
Service temperature range	-40°C to +80°C	-40°C to +80°C	80°C in process	+50°C in process
Short exposure (1hr)	+150°C	+150°C	+120°C	+120°C
Pack sizes	Not available in the U.K.	Not available in the U.K.	Not available in the U.K.	Not available in the U.K.
	LOCTITE UK 8439-21 • Self-levelling • Fast setting • Broad adhesion spectrum LOCTITE UK 8439-21 has very good workability and self-levelling properties. It is designed for the manufacture of particulate air filters. The product meets the requirements of the HEPA filter industry.	**LOCTITE UK 8180 N** • Fast built-in thixotropy • Short processing time • Good penetration into filter media LOCTITE UK 8180 N forms a chemical thixotropy which allows very fast in line processing for the assembly of filter elements. The product is suitable for clean room applications.	**LOCTITE CR 3525** • Fast setting • Easy processability LOCTITE CR 3525 undergoes a low exothermic reaction and therefore allows fast processing. **KTW approval** **EG 1935 2004, direct food contact** **2002/72/EC approval for the plastics industry**	**LOCTITE UK 178 A** • NSF approval, especially for spiral wound filters (RO)

Filter application				Electrical application
	Medical		Oil	
Wet substrates				
LOCTITE EA 9299 A	**LOCTITE CR 5103**	**LOCTITE CR 3502**	**LOCTITE EA 9430 A**	**LOCTITE CR 6127**
2K EP	2K PU	2K PU	2K EP	2K PU
LOCTITE EA 9299 B	LOCTITE CR 4100	LOCTITE CR 4100	LOCTITE EA 9430 B	LOCTITE CR 4300
Yellowish	Yellowish	Yellowish	Yellowish	Light beige
100:35	100:72	100:62	10:1	85:15
6 hr	5.5 – 7.5 min.	330 – 430 sec.	16 hr	70 – 110 min.
Liquid	700 – 1,500 mPa·s	600 – 1,400 mPa·s	8,000 mPa·s	2,600 mPa·s
+80°C in process	+45°C in process	+40°C in process	-55°C to +100°C	-40°C to +80°C
+200°C	+120°C	+120°C	+200°C	+150°C
Not available in the U.K.	Not available in the U.K.	Not available in the U.K.	Not available in the U.K.	35kg
LOCTITE EA 9299 A • Good adhesion properties • High processing temperature resistance LOCTITE EA 9299 A has a very good chemical resistance and offers good adhesion to wet fibres in the production process.	**LOCTITE CR 5103** • Allows steam, ETO or gamma ray sterilisation • Very good adhesion LOCTITE CR 5103 has very good penetration properties during centrifugation. The product is ISO 10993 compliant for medical equipment and approved for dialysers.	**LOCTITE CR 3502** • Allows steam, ETO or gamma ray sterilisation • Very good adhesion LOCTITE CR 3502 has very good penetration properties during centrifugation. The product is ISO 10993 compliant for medical equipment and approved for dialysers.	**LOCTITE EA 9430 A** • Long working life • High temperature stability • Low shrinkage LOCTITE EA 9430 A exhibits very good resistance to hydraulic fluids, fuel and chemicals. Due to its long open time it can also be used for large potting applications e.g. in gas separation filters.	**LOCTITE CR 6127** • Flame retardant acc. to UL 94 V0 • Elastic properties • Very good electrical properties e.g. dielectric strength or permittivity LOCTITE CR 6127 is qualified for the casting of telecommunication components, transformers or other electrical/electronic devices.

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						Mix ratio by weight*	Viscosity**	
LOCTITE CR 3502	2K PU Resin	Medical	Yellowish	800 – 1,600 mPa·s	LOCTITE CR 4100	100:62	600 – 1,400 mPa·s	
LOCTITE CR 3507	2K PU Resin	Medical	Yellowish	7,000 – 8,500 mPa·s	LOCTITE CR 4100	100:44	3,800 – 5,000 mPa·s	
LOCTITE CR 3510	2K PU Resin	Water	Beige	1,600 – 2,400 mPa·s	LOCTITE CR 4300	100:60	200 – 600 mPa·s	
LOCTITE CR 3519	2K PU Resin	Water	White	2,600 – 3,800 mPa·s	LOCTITE CR 4200	100:80	1,100 – 1,900 mPa·s	
LOCTITE CR 3525	2K PU Resin	Food/water	Yellowish	1,000 – 1,600 mPa·s	LOCTITE CR 4200	100:75	900 – 1,700 mPa·s	
LOCTITE CR 3528	2K PU Resin	Water	Yellowish	900 – 1,700 mPa·s	LOCTITE CR 4200	100:82	900 – 1,700 mPa·s	
LOCTITE CR 5103	2K PU Resin	Medical	Yellowish	1,000 – 1,400 mPa·s	LOCTITE CR 4100	100:72	700 – 1,500 mPa·s	
LOCTITE CR 6127	2K PU Resin	Electrical	White	8,000 – 14,000 mPa·s	LOCTITE CR 4300	85:15	2,200 – 3,000 mPa·s	
LOCTITE CR 6130	2K PU Resin	Electrical	White	3,000 – 4,600 mPa·s	LOCTITE CR 4300	100:28	800 – 1,400 mPa·s	
LOCTITE EA 1623986 A	2K Epoxy	End cap/water	Beige	4,000 – 7,000 mPa·s	LOCTITE EA 1623986 B	10:2,9	–	
LOCTITE EA 9299 A	2K Epoxy	Food/water	Amber (mixture)	–	LOCTITE EA 9299 B	100:35	Liquid	
LOCTITE EA 9430 A	2K Epoxy	Oil	–	–	LOCTITE EA 9430 B	10:1	Approx. 8,000 mPa·s	
LOCTITE UK 178 A	2K PU Resin	Food/water	Yellowish (mixture)	18,000 – 26,000 mPa·s	LOCTITE UK 178 B	1:1	18,000 – 30,000 mPa·s	
LOCTITE UK 8101	2K PU Resin	Air/waste water	Beige	6,000 – 10,000 mPa·s	LOCTITE UK 5400	4:1	2,500 – 2,800 mPa·s	
LOCTITE UK 8103	2K PU Resin	Air/waste water/oil	Beige	24,000 – 30,000 mPa·s	LOCTITE UK 5400	5:1	8,000 – 10,000 mPa·s	
LOCTITE UK 8121 B11	2K PU Resin	Oil/waste water	Beige	4,000 – 7,000 mPa·s	LOCTITE CR 4120	100:35	800 – 1,400 mPa·s	

* Mix ratio by weight depends on used hardener. For further details please refer to the TDS or contact your sales representative
** Viscosity and working life data are linked to the standard hardener (the first in the range)

Mixed data				Pack size	Comments
Pot life	Shore A/D hardness	Short exposure (1hr)	Service temperature		
330 – 430 sec.	87 – 97 (D)	+120°C	+40°C in process	Not available in the U.K.	Biologically compatible casting resin for dialysers
8 – 10.5 min.	80 – 90 (A)	+120°C	+40°C in process	Not available in the U.K.	Biologically compatible casting adhesives for medical devices
25 – 35 min.	65 – 75 (D)	+120°C	+50°C in process	Not available in the U.K.	KTW approval
30 – 40 min.	60 – 70 (D)	+120°C	+40°C in process	Not available in the U.K.	KTW approval, casting resin for filters
20 – 26 min.	58 – 68 (D)	+120°C	+80°C in process	Not available in the U.K.	Fast setting, KTW approval
15 – 20 min.	70 – 80 (D)	+120°C	-40°C to +80°C	Not available in the U.K.	Casting resin for water and food filters, KTW approval
5.5 – 7.5 min.	58 – 68 (D)	+120°C	+40°C in process	Not available in the U.K.	Biologically compatible for dialyser end caps
70 – 110 min.	79 – 89 (A)	+150°C	-40°C to +80°C	35kg	Low viscosity, good elasticity, long open time, UL-94 approval
135 – 225 sec.	65 – 75 (A)	+120°C	-40°C to +80°C	250kg	Low viscosity, good elasticity, short open time
800 – 1.200 sec.	–	–	–	Not available in the U.K.	Especially suited for the spiral winding and binding of glass yarns used during the production of reverse osmosis filter elements
6 hr	80 (D)	+200°C	+80°C in process	Not available in the U.K.	KTW approval, good adhesion properties, for wet fibres, high processing temperature resistance
16 min.	–	+200°C	-55°C to +100°C	Not available in the U.K.	Long working life, high temperature stability
40 – 60 min.	80 – 90 (A)	+120°C	+50°C in process	Not available in the U.K.	NSF approval, for spiral wound filters
50 – 70 min.	–	+150°C	-40°C to +80°C	Not available in the U.K.	Low viscosity, for air filter casting
40 – 70 min.	–	+150°C	-40°C to +80°C	24kg	For air filter casting, IMO approval
9.5 – 12.5 min.	75 – 85 (D)	+120°C	-40°C to +80°C	Not available in the U.K.	Especially for gravel filters, KTW approval

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						Mix ratio by weight*	Viscosity**	
LOCTITE UK 8180 N	2K PU Resin	Air	Beige	700 – 1,000 mPa·s	LOCTITE UK 5400	5:3	Thixotropic	
LOCTITE UK 8439-21	2K PU Resin	Air	White	750 – 1,250 mPa·s	LOCTITE UK 5400	5:2	400 – 1,000 mPa·s	
LOCTITE UK 8630	2K PU Resin	Oil	Beige	5,000 – 9,000 mPa·s	LOCTITE UK 5400	100:57.5	3,000 – 5,000 mPa·s	
LOCTITE CR 4100	2K PU Hardener	–	Yellowish	700 – 1,500 mPa·s	–	–	–	
LOCTITE CR 4200	2K PU Hardener	–	Yellowish	3,000 – 4,400 mPa·s	–	–	–	
LOCTITE CR 4300	2K PU Hardener	–	Clear brown	40 – 70 mPa·s	–	–	–	
LOCTITE UK 5400	2K PU Hardener	–	Brown	250 – 300 mPa·s	–	–	–	

Casting Resins Based on Epoxy and Polyurethane Technology
Possessing versatile characteristics, casting resins based on epoxy and polyurethane technology have been steadily gaining ground over the past decades. They can be chemically engineered to be very hard and impact resistant or soft and elastic. A casting resin usually consists of two basic components which are mixed and react with each other to form a cross-linked product. Systems of this kind generally display high strength, are easy to apply, and have very good gap filling properties. Polyurethane casting resins are compatible with a broad range of materials and withstand temperatures of up to 120°C (with brief peaks up to 150°C). If higher temperatures are required (up to 180°C), epoxy casting resins are used.

* Mix ratio by weight depends on used hardener. For further details please refer to the TDS or contact your sales representative
** Viscosity and working life data are linked to the standard hardener (the first in the range)

Mixed data				Pack size	Comments
Pot life	Shore A/D hardness	Short exposure (1hr)	Service temperature		
4 – 6 min.	–	+120°C	-40°C to +80°C	Not available in the U.K.	Thixotropic, good penetration into filter media
4 – 5 min.	–	+120°C	-40°C to +80°C	Not available in the U.K.	For HEPA filters, self-levelling
35 – 55 min.	–	+150°C	-40°C to +80°C	Not available in the U.K.	For air filter casting, low viscosity
–	–	–	–	Not available in the U.K.	Temperature sensitive, do not store at lower than 20°C
–	–	–	–	Not available in the U.K.	Temperature sensitive, do not store at lower than 20°C
–	–	–	–	6kg	Temperature sensitive, do not store at lower than 20°C
–	–	–	–	6kg, 30kg, 250kg	Temperature sensitive, do not store at lower than 20°C