



GFL 3030 & GFL 3040 Gap Filler Liquid

For high volumes in particular, two-component GFL are an efficient and cost-oriented solution. For this purpose, the two components of the ceramic filled silicone elastomers are blended by a mixing tube and can be directly applied to the component (e.g. metal housing) by a dispensing system.

In the next step, the electronic components (e.g. IGBTs, capacitors, etc.) are attached under slight pressure to the still uncured mass, thus creating an even distribution of the mass and consequently a defined thickness as well as reproducible electrical and thermal parameters. The cross-linking or curing of the mass takes place under room temperature and lasts about an hour, but can be customized at the customer's request. Primarily the GFL with lower thermal conductivity has a high self-adhesion, which can be very useful for the assembly.

Compared to systems based on polyurethane or epoxy, silicon-containing GFL can absorb and compensate vibrations much better, an effect that is favoured by the high softness of the GFL. In addition, the low viscosity of the GFL allows for a simple workability and has a gentle effect on the dispensing system.

Properties	Unit	GFL 3030	GFL 3040
Colour		green	lilac
Basic material		silicone	silicone
Mixing ratio		1 : 1	1 : 1
Curing		1h ;RT	1h ;RT
Thermal Properties			
Thermal resistance R_{th}	K/W	0.41	0.29
Thermal conductivity λ	W/mK	3.0	4.3
Electrical Properties			
Breakdown voltage $U_{d, ac}$	kV	6.0	5.0
Dielectric breakdown $E_{d, ac}$	kV/mm	12.0	10.0
Mechanical Properties			
Measured thickness (+/-10%)	mm	0.500	0.500
Hardness	Shore 00	65 - 85	65 - 85
Physical Properties			
Application temperature	°C	-40 to +200	-40 to +200
Density	g/cm ³	2.94	3.05
Viscosity*	Pas	50 - 80	55 - 85
Total mass loss (TML)	Ma. -%	< 0.06	< 0.09
Flame rating	UL-94	V-0**	V-0**
Possible thickness	mm	0.200 - 5.000	0.200 - 5.000

*Shear rate 4s⁻¹ / 25°C

**KERAFOLE® test according to UL

Ceramic filled, solvent free two component silicone elastomer. Room temperature curing makes it suitable for wet in wet production.

Customer benefit

- ✓ A professional service-provider for dispensing production and technology
- ✓ A more economical dispensing material compared to conventional thermal pastes and tapes
- ✓ A time-saving, easy assembly due to the prefabricated, ready dispensed components

NOTE:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. KERAFOL® is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product. All specifications are subject to change without notice. Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded. In case KERAFOL® would be nevertheless held liable, on whatever legal ground, KERAFOL®'s liability will in no event exceed the amount of the concerned delivery. All KERAFOL® products are sold pursuant to the KERAFOL®'s Terms and Conditions of sale and delivery in effect from time to time, a copy of which will be furnished upon request.

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