

KÖRAFORM A 42

Character

Transparent, addition crosslinking silicone casting compound for the reproduction of original models (stereolithography models)

Technical Data


	KÖRAFORM A 42 component A	KÖRAFORM A 42 B component B	KÖRAFORM A 42 W B component B	KÖRAFORM A 42 H B component B		
Colour	transparent	transparent	transparent	transparent		
Viscosity	62.000	650	6.000	650	mPa·s	Brookfield HBTD ¹⁾
Density	1.09	0.98	0.98	0.98	g/cm³	DIN 53 479 ¹⁾
	Mixture					
	KÖRAFORM A 42 + A 42 B	KÖRAFORM A 42 + A 42 W B	KÖRAFORM A 42 + A 42 H B			
Mixing ratio	10 : 1	10 : 1	10 : 1	acc. to weight	¹⁾ Brookfield HBTD ¹⁾	
Viscosity	34,000	35,000	34,000	mPa·s		
Potlife	90	90	45	min	¹⁾	
Demouldable after	12	12	8	hours	¹⁾	
	Vulcanizate					
Hardness shore A	42	40	48		DIN 53 505 ²⁾ DIN 53 504	
Tensile Strength	6.0	5.5	6.5	N/mm²	S 3 A ²⁾ DIN 53 504	
Elongation at break	330	360	300	%	S 3 A ²⁾ ASTM D 624	
Res.to further tearing	20	25	15	N/mm	form B ²⁾	
Linear shrinkage	0.1	0.1	0.1	%	after 7 days	
The platinum catalyst is contained in component A						
¹⁾ = Measured under standard climate DIN 50 014-23/50-2						
²⁾ = Vulcanizate, measured after 14 days of storage under standard climate DIN 50 014-23/50-2						

Storage

With a storage in tightly closed original containers at temperatures between 5 and 30 °C components A and B of KÖRAFORM A 42 can be optimally processed for at least 12 months.

The above given values are product describing data. Please consult the 'delivery specification' for binding product specifications. Further data about product properties, toxicological, ecological data as well as data relevant to safety can be found in the safety data sheet.

Properties

- Good flow behaviour and high transparency
 - Excellent resilience
 - Very good stability to casting resin
 - Improved stability to inhibited curing
 - Suitable for  applications
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Application Technique

Processing

Preparation of Work

To component A component B is added at a mixing ratio of 10 : 1 according to weight and mixed with a spatula or a mixer until the compound is homogeneous. The potlife of 60 min during which KÖRAFORM A 42 is to be processed starts with mixing (cast or spread by a brush). Demoulding can be done at 23 °C at least after 12 hours at the earliest. Longer potlife times can be adjusted with the potlife extender KÖRAFORM A 42/42 LB.

For an absolutely bubble-free vulcanizate the mixed silicone gel must be degassed using vacuum prior to the casting process. By addition of up to 0.2 weight percent of KÖRAFORM TM C to component A the viscosity can be increased up to stability.

Impaired Curing (Inhibiting)

Certain substances may impair or even completely prevent the curing behaviour of addition crosslinking silicone gels. Typical indications are sticky surfaces between the silicone and the contact surfaces.

The following substances are particularly critical:

- substances containing nitrogen (amines, polyurethanes, epoxy resins)
- substances containing sulphur (polysulphones, natural and synthetic rubbers (EPDM))
- organometal compounds (organotin compounds, vulcanizates and hardeners of condensation crosslinking silicones)

It is absolutely important to check the compatibility in preliminary tests if unknown substrates are used.

Variations with four different B components enable the user to adjust KÖRAFORM A 42 individually to its demands regarding

- potlife and curing time
- dry or "moist", self-releasing surface
- mechanics

KÖRAFORM A 42 + KÖRAFORM A 42 B

- Standard adjustment
- Silicone rubber with dry surface (casting of transparent parts)

KÖRAFORM A 42 + KÖRAFORM A 42 W B

- Highly elastic
- Extreme resistance to further tearing
- Excellent self-releasing behaviour
- Furtherly improved resistance to casting resin

KÖRAFORM A 41/42 LB (potlife extender)

By addition of KÖRAFORM A 42/42 LB the potlife and curing time can be adjusted to the processing conditions (mixing by hand or mixer) or to the mould size. The mixing ratio of component A : B remains constantly 10 : 1. By means of the mixing ratio of the B components A 42 B and A 42 WB with 41/42 LB the potlife can be modified. The following table shows the different potlives and corresponding demoulding times.

KÖRAFORM A 42 B or A 42 W B : KÖRAFORM A 41/42 LB	Potlife (min)	Demouldable after (h)
10 : 0	90	12
7 : 3	135	17
3 : 7	270	24
0 : 10	300	30

Solvents and Cleaning Agents

For removing fresh compound KÖRASOLV GL must be applied. Residues in the stirring or casting vessel can be easily removed by letting them cure in order to scrape them off afterwards.

Safety

Please observe our EC safety data sheets and the safety remarks on our container labels when handling our products. The dangerous goods regulations and the accident prevention regulations of the professional associations must be particularly observed. Keep the EC safety data sheet of the applied product at hand since it provides you with useful instructions for the safe use and disposal of the product as well as for actions to be taken in case of accidents.

Delivery Units

KÖRAFORM A 42 A:	22 kg hobbock; 200 kg drum
KÖRAFORM A 42 B:	2.2 kg canister
KÖRAFORM A 42 W B:	2.2 kg canister
KÖRAFORM A 42/42 LB:	2.2 kg canister
KÖRAFORM A 42 H B:	2.2 kg canister

We reserve the right to modify the product and technical leaflet.

Our department for applied technique is always at your service for further information and advice.

Our technical advice and recommendations given verbally, in writing or by trials are believed to be correct. They are neither binding with regard to possible rights of third parties nor do they exempt you from your task of examining the suitability of our products for the intended use. We cannot accept any responsibility for application and processing methods which are beyond our control.

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