

Lokfix DUR

Epoxy-acrylate-based resin cartridge system for anchoring, bonding and repairing

Uses

For concrete and solid stone typical uses are:

- Heavy load-carrying attachments in solid stone, concrete, porous concrete and light concrete.
- Attachment points close to the edge, since anchoring is free of expansion forces.
- Suitable as repair mortar or adhesive mortar for concrete components.
- Attachment of anchor rods, threaded collars, reinforcement bars, profiles etc.
- Suitable for attachment of facades, projecting roof, wooden constructions, metal constructions, metal profiles. Consoles, railings, grills, sanitary fittings, pipe connections, cable runs etc.
- Screw static mixer to cartridge.
- Use Lokfix DUR injection (application) gun.
- Squeeze out and discard compound until a homogeneous gray colour is obtained before use.
- Starting from the back end or the 'cul de sac' of the hole, fill completely with Lokfix DUR.
- Push anchor up to base of hole whilst turning it slightly.
- Observe hardening time.
- Install component, apply torque.

Advantages

- Can be used in various solid stones.
- Can be used in Galvanised steel, stainless steel, high corrosion resistant steel.
- Cartridge can be used up to the end of the validity date by replacing the static mixer or resealing cartridge with the sealing cap.
- Water-impermeable joint, i.e. no water can penetrate into the hole at the side of the adhesive compound
- Accurate dosage of the compound.
- Secure anchoring in hollow brick; high load-bearing capacity.
- No expansion effect, allowing attachment points to be placed close to edges etc.

Instructions for use

Preparation

- For concrete, solid stone drill hole with percussion drill.
- Clean drill hole (blow out four times, use a brush four times).

Reaction characteristics

Temperature	Curing Start (minutes)	Curing End (minutes)
+ 5°C	25	120 – 240
+10°C	15	80 – 160
+20°C	6	45 – 90
+30°C	4	25 – 50
+35°C	2	20 - 40

Description

Lokfix DUR is supplied as cartridge containing an epoxy acrylate base reacting resin mortar, with styrene.

Lokfix DUR should be applied with special application gun and static mixers.

Properties

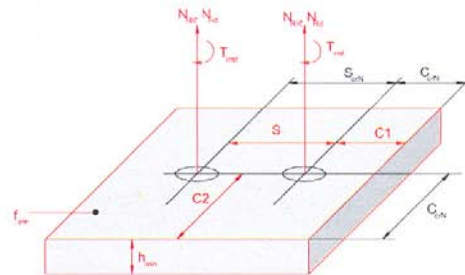
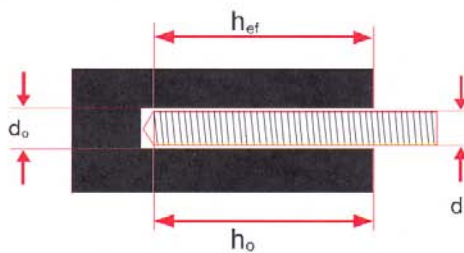
Density:	1.68 kg/m ³
Tensile strength:	11 N/mm ² (24 hrs)
Compressive strength:	60 N/mm ² (25 hrs)
Temperature resistant up to:	80°C

Lokfix DUR

Mechanical / Physical properties

Design

Terminology and Abbreviations:



Safety factor for share loads 1,56 acc. to ETAG							
recommended loads							
Resin	Concrete		M8	M10	M12	M16	M20
Load in every direction	P C30/35	F_{red} [kN]	4,9	7,3	10,3	12,0	19,1
Installation parameters							
Minimum close edge distance to achieve NRK		$C_{ed,N}$ [mm]	80	90	110	130	170
Close edge distance(mm)		C [mm]	40	50	60	70	90
Minimum anchor spacing to achieve NRK(mm)		$S_{ed,N}$ [mm]	160	180	220	250	340
Anchor spacing (mm)		S [mm]	80	90	110	125	170
Effective anchorage depth (both length) (mm)		h_{ef} [mm]	80	90	110	125	170
Min. concrete thickness (mm)		h_{min} [mm]	130	140	160	175	220
Stud or bar nominal diameter (mm)		d [mm]	8	10	12	16	20
Drilled hole diameter (mm)		d_o [mm]	10	12	14	18	24

Design values							
	Concrete/Steel		M8	M10	M12	M16	M20
Characteristics tensile load(kN)	PC20/25	N_{Rk} [kN]	12.3	18.4	26.0	30.2	48.1
Recommended load = NRK multiplied with a total safety factor		N_{Rd} [kN]	6.9	10.2	14.4	16,8	26.7

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System Information

Application Details

Consumption / Dosage Material consumption per anchor in ml

Anchor Ø mm	Drill Ø mm	Drill hole depth in mm																			
		8	90	110	120	130	140	160	170	180	200	210	220	240	260	280	300	350	400		
8	10	3	4	4	5	5	5	6	6	7	7	7	8	8	9	9	10	11	12		
10	12	4	5	5	6	6	6	7	8	8	8	8	9	10	10	11	12	14	15		
12	14	5	6	6	6	7	7	8	8	9	10	10	11	11	12	13	14	16	18		
14	18	9	10	11	14	14	15	16	19	20	22	23	24	26	28	30	32	37	42		
16	18	9	10	11	13	14	15	17	18	19	21	22	23	26	28	30	32	36	40		
	20	10	12	12	15	15	17	20	21	22	24	25	26	29	31	33	35	40	46		
20	24	12	13	14	15	18	18	22	24	26	28	30	32	36	36	42	46	56	66		
	25	19	19	21	23	24	26	30	31	32	36	36	40	44	46	50	54	64	72		
24	26	24	25	28	30	33	35	40	43	45	50	55	58	60	65	70	75	100	125		

The indicated filling quantities are calculated without wastage. Wastage 10 - 50%.

The filled quantity can be monitored during injection with the help of the scale on the cartridge label.

Substrate Quality

Mortar and concrete must be older than 28 days.

Substrate strength (concrete, masonry, natural stone) must be verified.

Pull-out tests must be carried out if the substrate strength is unknown.

The anchor hole must always be clean, dry, free from oil and grease etc.

Loose particles must be removed from the holes.

Application Instruction

Getting the cartridge ready:



1. Unscrew and remove the cap



4. Screw on the static mixer



2. Pull out the plug




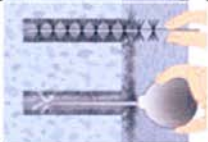

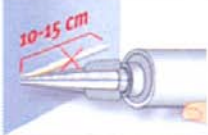


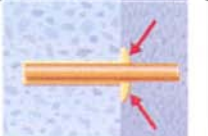
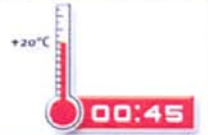

5. Place the cartridge into the gun and start application



3. Cut the film and remove the plug

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Application Method / Tools

1		Drill hole with percussion drill
2		Clean drill hole (blow out: 4x, brush out: 4x, blow out: 4x)
3		Screw mixer to cartridge
4		Squeeze out and discard until a obtained before use compound homogeneous gray color
5		Starting from the back end, fill hole completely with mortar
6		Push anchor up to base of hole whilst turning it slightly
7		Visual check of mortar filling
8		Observe hardening time
9		Install component, apply torque

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Technical support

Fosroc offers a comprehensive range of high performance, high quality concrete repair and construction products. In addition, Fosroc offers a technical support package to specifiers, end-users and contractors, as well as on-site technical assistance in locations all over the world.

Estimating

Supply

Lokfix DUR:	380 ml cartridge
Lofix DUR Injection Gun:	One

Storage

Shelf life

Cartridges have a shelf life of 12 months if kept in a store at 5°C to maximum 25°C.

Storage conditions

Store in cold conditions at temperatures at 5°C to maximum 25°C.

Additional information

Fosroc manufactures a wide range of complementary products which include:

- Waterproofing membranes and water-stops.
- Joint sealants and filler boards.
- Cementitious and epoxy grouts.
- Specialised flooring materials.

Fosroc additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Fosroc's 'Systematic Approach' to concrete repair features the following:

- Hand-placed repair mortars.
- Spray grade repair mortars.
- Fluid micro-concrete.
- Chemically resistant epoxy mortars.
- Anti-carbonation/anti-chloride protective coatings.
- Chemical and abrasion resistant coatings.

For further information on any of the above, please consult your local Fosroc office.



Fosam Company Limited

Head Office
Post Box 11081
Jeddah – 21453
Saudi Arabia

www.fosroc.com

Important note:

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Telephone: +966 2 637 5345

Fax: +966 2 637 5891

email: fosam@fosroc.com

Regional Offices

Jeddah Sales Office	Tel: (02) 608 0999	Fax: (02) 638 0693	Yanbu	Tel: (04) 322 4280	Fax: (04) 391 2980
Jeddah Showroom	Tel: (02) 665 0187	Fax: (02) 667 4844	Makkah	Tel: (02) 542 0869	Fax: (02) 542 0869
Riyadh	Tel: (01) 482 9303	Fax: (01) 482 7562	Medinah	Tel: (04) 855 0091	Fax: (04) 855 0047
Dammam	Tel: (03) 814 1282	Fax: (03) 814 1581	Jubail	Tel: (03) 362 3904	Fax: (03) 362 3875
Khamis Mushayt	Tel: (07) 250 0469	Fax: (07) 250 0469	CSD	Tel: (02) 608 0999	Fax: (02) 638 0693

Registered Office: Industrial Area, Phase 4, Road No. 414, Street No. 407