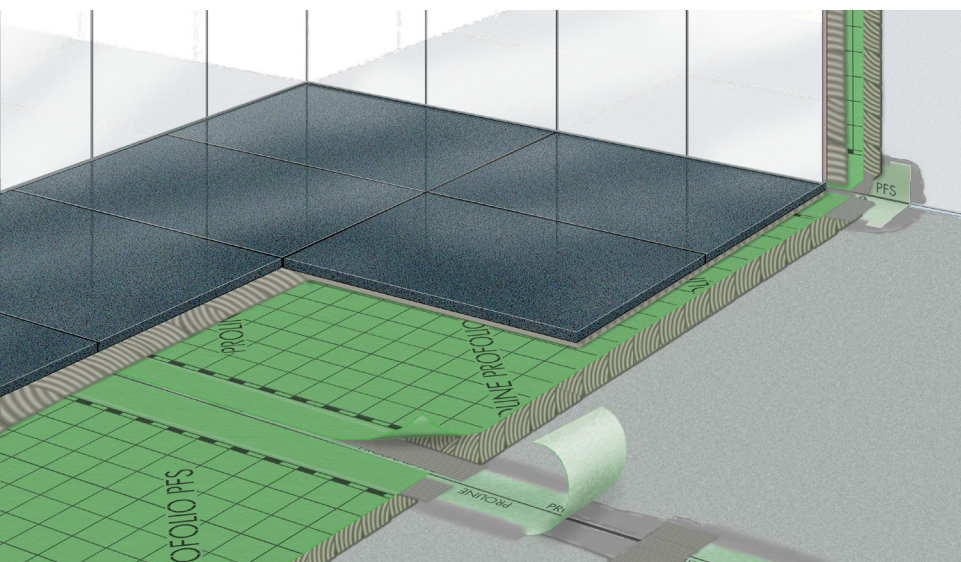


PROFOLIO

in conjunction with products made by Kiesel-Bauchemie

Sealing and decoupling membrane under tiled and slab flooring



Fields of application:

PROFOLIO is a flexible and crack covering sealing and decoupling membrane for forming joint seals in damp and wet rooms, in areas with chemical loads and also outside areas on balconies and patios for moisture resistance categories A, B0 and C. According to DIN 18534 this corresponds to the water performance classes W1-I, W2-I and W3-I respectively outside surfaces according to DIN 18531-5 (balconies, loggias, pergolas).

Typical areas of application are private or commercial bathrooms and shower cubicles, e.g. in hotels, hospitals and care homes, laundries and other wet areas such as swimming pool walkways and similar.

Additional areas of application are wet areas with limited chemical load as well as joint sealing load distribution plates in outside areas in accordance with DIN 18560.

PROFOLIO has a crack covering effect and thereby provides a high level of safety against cracks that may later appear in screed covering and floor structures.

PROFOLIO protects moisture-sensitive substrates, such as wooden structures or substrates containing gypsum, against

damage caused by water ingress as well as damage caused by vapour diffusion.

PROFOLIO is used on walls and floors that have mainly pedestrian traffic. Light to medium loads from wheels or rollers with pneumatic or rubber tyres are possible. **PROFOLIO** can be fitted on or under underfloor heating.

PROFOLIO in conjunction with products made by Kiesel-Bauchemie is a sealing system (abP) approved under building regulations.

Matching sealing tape, corners and collars are included in the system.

PROFOLIO is used for new builds and renovation projects, even if work is to continue directly on old substrates.

- For joint sealing in damp and wet rooms and in areas of load resistance groups A, B0 and C in accordance with ZDB bulletin 'Joint sealing' ZDB leaflet "Bonded waterproofing" and according to DIN 18531-5, e.g. walls and floor surfaces of swimming facilities that are directly connected to buildings.
- Under ceramic tiling and slab flooring made from natural, precast and artificial stone
- In domestic, commercial and industrial areas.
- On screed floors, concrete floors, prefabricated parts, cavity floor structures or wooden floor structures, old tiles or slab flooring

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- On lime cement, cement and gypsum plaster; plasterboard, gypsum fibreboard and dry lined walls, tile support elements and EPS, XPS or PU foam boards
- Can be used on electric heating conductors or hot water floor heating
- To protect supporting substrate against tempering water of screeding mortar

Product advantages:

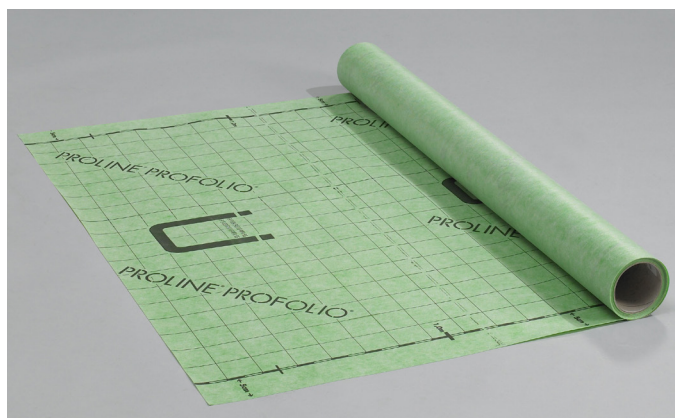
PROFOLIO is easy to work with and can be cut without trouble using a sturdy craft knife or carpet scissors. The fleece lining on both sides enables a good bond to mortar or adhesive.

PROFOLIO is ready to use and facilitates a quick transition to subsequent measures. The prescribed layer thickness test is rendered superfluous. The seal is very resistant to construction site-related effects. The low thickness helps to achieve a flat, level finish.

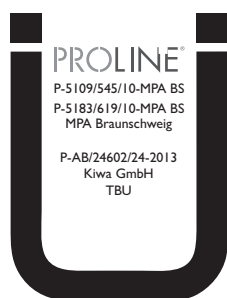
PROFOLIO is resistant to many acids, bases, salt, organic solvents, alcohol and oil (see resistance list in appendix).

PROFOLIO is resistant to ageing and poses no physiological threat.

PROFOLIO is flexible, rot-proof, resistant to bacteria and fungus and also poses no threat to drinking water.



- Easy to work
- Ready to use with defined coating thickness
- Crack covering flexibility
- Damp inhibiting
- Certified overall system with general building inspection test certificates
- Decoupling



Delivery form:

Sheet material wound onto a roll, 1.00 m wide

Rolls of 5 m² Item no.: 93501

Rolls of 30 m² Item no.: 93502

Specifications:

PROFOLIO

sealing and decoupling membrane

Material	Polyethylene film laminated with thermal PP fleece layer on both sides.
Colour	Green
Width	1 m (+/- 3 mm)
Thickness	approx. 0.4 mm (+/- 0.1 mm)
Weight	approx. 277 g/m ² (+/- 6%)
Consumption value	approx. 1.05 m/m ²
Fire rating	B2 in accordance with DIN 4102
Burst pressure max.	>2.8 bar
S _D value	>50 m
Processing/substrate temperature	+5 °C – +25 °C
Temperature resistance	-30°C to +90°C

General building inspection test certificate:

On request, a copy of the test certificate can be sent to you via the email address or fax number provided or via download from www.proline-systems.com/download.

Storage and transportation:

Rolls and accessory parts should generally be stored and transported in a cool and dry place with protection against sunlight and contamination. Ideally, rolls of **PROFOLIO** should be stored upright. The storage period under these circumstances is 24 months.

Environmental protection and disposal:

Containers and surplus materials must be disposed of in accordance with legislative regulations and regional by-laws.

Instructions on hazardous goods and substances:

No special measures required.

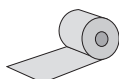
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Additional products required:

PROFOLIO sealing tape:

Type	Highly flexible, laterally elastic tri-laminate, with fleece backing on both sides	
Colour	Green	
Thickness	approx. 0.7 mm	
Total width	approx. 120 mm (+/- 2 mm)	
Rolls of	50 m (with scaling)	Item no.: 93131
Rolls of	10 m	Item no.: 93141



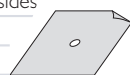
PROFOLIO sealing tape corners:

Type	Highly flexible, laterally elastic tri-laminate, with fleece backing on both sides	
Colour	Green	
Thickness	approx. 0.7 mm	
Total width	approx. 60 + 60 mm	
Leg length, inner corner	approx. 120 mm	
Leg length, outer corner	approx. 110 mm	
Box containing	25 items	
Inner corner		Item no.: 93518
Outer corner		Item no.: 93519



PROFOLIO sealing collars:

Type	Highly flexible, laterally elastic tri-laminate, with fleece backing on both sides	
Colour	Green	
Thickness	approx. 0.7 mm	
Wall sealing collar, inc. 15 mm perforation		Item no.: 93512
Size	120 x 120 mm	
Box containing	25 items	
Floor sealing collar		Item no.: 93510
Size	425 x 425 mm	
Box containing	10 items	



PROFOLIO tub sealing tape

with cut and noise insulation design:

Type	Highly flexible fleece-backed tri-laminate
Colour	Green
Thickness	0.7 mm
Cut protection profile	0.9 mm
Length	4 m / 10 m
	Item no.: 93133 / 93134

OTTOCOLL M500 hybrid adhesive and sealants:

Type	I-component hybrid polymer-based adhesive and sealant (STPU)
Colour	White, grey, transparent
Cartidge	310 ml
	Item no.: 93514 / 93516 / 93517

Construction chemical products:

of Kiesel Bauchemie GmbH u. Co. KG, Esslingen.

The manufacturer's technical bulletins must be observed.

Screeding mortar:

Servoflex K-Plus SuperTec, thin-bed mortar
Servoflex K-Schnell SuperTec, thin-bed mortar
Servoflex-Trio-SuperTec, thin-bed mortar
Servoflex-Trio-Schnell SuperTec, thin-bed mortar

Adhesive and mortar for joint sealing:

Servoflex DMS 1K Plus SuperTec, 1-pack sealing gel
Servoflex K-Plus SuperTec, thin-bed mortar
Okapox GF-M, 2-pack multi-purpose epoxy resin
Okapox royal, 2-pack epoxy resin adhesive

Preparation/assessment of substrate:

The substrate must be level, clean, dry, free of parting agents, loose or easily detachable materials and capable of taking the intended load through sufficient adhesion, flexural resistance, it must be intact and have a load distributing effect over the surface.

Deformation through shrinkage in the substrate must have subsided to the furthest extent possible, while other deformations must be excluded.

The substrate should be checked to ensure that it is suitable for the planned moisture resistance category (ZDB bulletin 'Notes for performing joint sealing...').

The evenness of the substrate must meet the necessary quality requirement depending on the subsequent top layer: Levelling work before laying **PROFOLIO** must be carried out.

Existing cracks in the substrate must be sealed and plugged properly and over time should not exhibit any offset in height. Hairline cracks in the surface (< 0.2 mm width) that have no influence on the rigidity of the substrate can be covered.

Substrates must be assessed and prepared according to the relevant codes of industrial practice.

The manufacturer's details of the chemical products used must be observed.

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Moisture resistance rating (FBK) / water class / norm	Substance 1 Bonding sealing tape, inner and outer corners	Substance 2 Bonding overlaps of membrane and sealing tape	Substance 3 Bonding membrane downwards	Substance 4 Mortar/adhesive for laying coverings	Substance 5 Attaching collars to walls for pipe apertures	Substance 6 Bonding collars to floors via drainage point with PROFUX adhesive flange
A / W2-I / DIN 18534-5 (wet rooms)	Servoflex DMS IK Plus SuperTec (add 26% water)	Servoflex DMS IK Plus SuperTec (add 26% water)	Servoflex DMS IK Plus SuperTec (add 26% water) Servoflex K-Plus SuperTec (add 36% water)	Servoflex K-Plus SuperTec Servoflex K-Schnell SuperTec Servoflex-Trio-SuperTec Servoflex-Trio-Schnell-SuperTec Okapox royal 2-pack epoxy resin	Servoflex DMS IK Plus SuperTec (add 26% water) Okapox GF-M 2-pack epoxy resin OTTOCOLL M500	Okapox GF-M 2-pack epoxy resin OTTOCOLL M500
B0 / DIN 18531-5 (balconies/patios)	Servoflex DMS IK Plus SuperTec (add 26% water)	Servoflex DMS IK Plus SuperTec (add 26% water)	Servoflex DMS IK Plus SuperTec (add 26% water) Servoflex K-Plus SuperTec (add 36% water)	Servoflex K-Plus SuperTec Servoflex K-Schnell SuperTec Servoflex-Trio-SuperTec Servoflex-Trio-Schnell SuperTec Okapox royal 2-pack epoxy resin	Servoflex DMS IK Plus SuperTec (add 26% water) Okapox GF-M 2-pack epoxy resin OTTOCOLL M500	Okapox GF-M 2-pack epoxy resin OTTOCOLL M500
C / W3-I / DIN 18534-5 (chemical load)	Servoflex K-Plus SuperTec (add 36% water)	Okapox GF-M 2-pack epoxy resin Okapox royal 2-pack epoxy resin	Servoflex K-Plus SuperTec (add 36% water)	Okapox royal 2-pack epoxy resin	Okapox GF-M 2-pack epoxy resin OTTOCOLL M500	Okapox GF-M 2-pack epoxy resin OTTOCOLL M500

Installation conditions:

When preparing the substrate, the substances/materials used must be set and dry (e.g. primer; filling and levelling compounds). The room and substrate temperature should be between +5 °C and +25 °C. It would be pertinent to adjust the climatic conditions to those expected during later use.

It is recommended that **PROFOLIO** is cut to fit in advance and then left unfolded/unrolled in the room.

The prepared substrate should be pretreated, in accordance with its type and structure, for subsequent bonding of **PROFOLIO** and adapted to the mortar being used. In principle, the thin-bed mortar used on and under **PROFOLIO** should meet at least quality rating C2 in accordance with DIN EN 12004.

Choose the right sealing substances and/or mortar depending

on the type of substrate and the load parameters. The sealing substances or mortar must cover the fibres on the backing fleece well.

If you are unsure about material compatibility, carry out preliminary tests or seek technical advice.

Note regarding tools:

- A toothed spatula, cut to size if necessary, e.g. TKB toothed A3 or S3, or a shortened toothed spatula (square teeth 4 mm and 3 mm) make it easier to spread the mortar evenly in the overlapping zones.
- The adhesive and mortar are applied using a spatula (SP), toothed spatula (ZSP), toothed trowel (ZTR) or brush (P).

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A suitable brush (P) must be capable of taking up and spreading medium viscous epoxy resins and is used, if necessary, with the product 'Okapox GF-M, 2-pack epoxy resin'.

- When working with the sealant, thin protective gloves are recommended

Processing:

Basics:

Using a suitable tool, press or rub on the film, sealing tape, corners and overlapping zones so that good contact is made and creases are removed. Work any excess material that escapes over the edge of the adhesive joint and smooth down. Ensure at regular intervals that the sealant is applied in a quantity suitable to cover the whole area and that no ridges are formed or blisters remain in the sealant under the PROFOLIO part.

Processing PROFOLIO sealing tape:

First, stick down all PROFOLIO inner corners and outer corners as required using **substance 1** (SP, ZSP).

Then, cut PROFOLIO sealing tape to the required length, including overlapped areas (**at least 5 cm**) and again stick down using **substance 1** centrally (see printed centre line) over the expansion joints and over the floor/wall corner. No adhesive or mortar should come into contact with the edge strip (width) and expansion joints (if necessary, mask off in advance using suitable narrow adhesive tape).

Bond the overlapping zones of the sealing tape and sealing corners with **substance 2** (SP, ZSP, P).

For versions complying with FBK* C, ensure that there is enough clean area to bond the overlapping zones. Bonding of the overlapping zones can also be performed completely once the sealing tape has hardened sufficiently.

Processing PROFOLIO sealing and decoupling membrane:

With a 4 mm toothed smoothing trowel (ZTR), 'comb' the **substance 3** mortar over the width of the strip. Then lay the perfectly cut strips straightaway and press down well or, if necessary, roll on using a suitable carpet roller or use a smoothing float or wooden block.

The time available to fit the strips dictates the amount of mortar that should be spread. Do not spread more than can be laid. Ensure that the film is laid without creases and that it is embedded across as much of the area as possible. Fit all other strips so

that there is an overlap of at least 5 cm over the next strip.

Only apply **substance 3** up to the edge of the next strip. In the same way, only apply **substance 3** up to the edge of PROFOLIO sealing tape.

Any overlaps within the film area and any overlaps at the end of the sealing tape must be bonded in the way described before using **substance 2** (SP, ZSP).

Thereafter, apply a sufficient quantity of **substance 2** to the sealing tape at the walls and smooth off leaving a chamfered finish. Provided the same material is used from **substances 1, 2 and 3** (Servoflex DMS 1-pack Plus SuperTec | FBK* A and B0), the film can be bonded downwards by spreading the mortar over the overlapping zone in one motion and the overlaps can be bonded (ZTR).

If it becomes necessary to walk (carefully) on the film or tape, take care not to create any blisters or swellings.

Processing PROFOLIO sealing collars:

PROFOLIO sealing collars are fitted on walls and floors by bonding fully over PROFOLIO using **substance 5 and 6** in the aforementioned way.

Floor drainage points require a suitable adhesive flange (e.g. PROLINE PROFLUX) or a loose-fixed flange.

PROFOLIO floor sealing collars:

From the sealing collars, mark the opening according to the planned floor drainage opening, cut to fit and integrate in the loose-fixed flange structure.

If using bonded flange connections (or a counterflange combination), cut out the drainage opening in the same way.

Bonding (P, ZSP, SP) of the sealing collars over the sealing flange and further bonding over PROFOLIO is carried out using **substance 6**.

If reaction resin escapes, spread quartz sand over it when fresh. Remove the quartz sand before starting any new work. Ensure, when doing this, that no contamination is caused in and around the drainage cup.

PROFOLIO wall sealing collars and PROFOLIO pipe collars with expansion zone:

The wall sealing collars are already stamped with a 15 mm hole in the centre. For larger pipe apertures, increase the size of the stamped hole in such a way that the diameter of the stamped

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hole is at least 7 mm smaller than the pipe aperture and the resulting sheath effect of the collar; at least 2 mm, is wrapped homogeneously around the pipe.

Apply a sufficient quantity of **substance 5** around the connection point between pipe and wall and also to the remaining area under the collar. Fold the wall sealing collar or the pipe collar with expansion zone over the pipe and press or rub on so that it makes good contact and any creases are removed (ZSP, SP, P). Work any excess material over the edge of the adhesive seam and smooth down.

If reaction resin escapes, spread quartz sand over it when fresh. Remove the quartz sand before starting any new work.

On completion of the sealing work, check the areas for damage, insufficient bonding, creases and blisters or perforations and carefully rectify as necessary.

The surface coating is laid once the sealant/thin-bed mortar has hardened sufficiently and the film and sealing tape are firm enough. This depends on the climatic conditions at the building site and the existing substrate.

Sealed-in pipes and components must not be turned any further or removed as otherwise there is a risk of impairing the sealed joint.

Laying tiles + slabs:

Using mortar listed in the **substance 4** column, the tiles and slabs are laid using the thin/medium-bed method according to the relevant codes of industrial practice and the manufacturer's specifications of KIESEL Bauchemie.

Chemical resistance of PROFOLIO:

Resistance after 7 days in storage at room temperature to following chemicals (internal examinations)	+ = resistant 0 = weakened - = not resistant
Hydrochloric acid 3 %	+
Sulphuric acid 35 %	+
Citric acid 100 g/l	+
Lactic acid 5 %	+
Lime potash 3 %/20 %	+/+
Sodium hydrochloride 0.3 g/l	+
Seawater (20 g/l seawater)	+

Hydrochloric acid 3 %	+
Sulphuric acid 35 %	+
Citric acid 100 g/l	+
Lactic acid 5 %	+
Lime potash 3 %/20 %	+/+
Sodium hydrochloride 0.3 g/l	+
Seawater (20 g/l seawater)	+

Processing as decoupling layer:

Provided **PROFOLIO** is used exclusively as a decoupling film, there is no need to use sealing tape and sealing sleeves.

The film overlaps can then be stuck down using the thin-bed mortar employed to bond the film.

Standards and regulations:

Aside from all the relevant and currently applicable bulletins, standards and directives, the information listed as follows is recommended:

- DIN 18352 Tile and slab laying work
- DIN 18332 Natural stone work
- DIN 18333 Cast stone work
- DIN 18353 Screed work
- DIN 18195 Building seals
- DIN 18534 waterproofing for indoor applications
- DIN 18534-1 Requirements and principles for design and execution
- DIN 18531 Waterproofing of roofs, balconies and walkways in particular
- DIN 18531-5 balconies and walkways
- DIN 18202 Tolerances in building construction
- DIN 18560 Screeds in building construction
- DIN EN 13813 Screed mortar and screed masses
- DIN 18515 TI Exterior wall trim and mortared tiles and slabs
- Bulletins from German Association of Screed and Flooring
- Bulletins from Association of Tiles and Natural Stone in the Central Association of the German Construction Industry, in particular:
 - Joint sealing
 - Outside flooring
 - Expansion joints
 - Substrates in damp rooms
- Interface co-ordination of heated underfloor structures
- ZDB tile and slab information 'Information on decoupling'
- BAKT InfoTechnik – Bathrooms in dry-wall construction
- German Natural Stone Association – Building information about natural stone

All details were determined with the greatest of care and serve as an aid for orientation. They were calculated for the **PROFOLIO** product and not for the whole PFS system.

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Important information:

- Plastic hardened mortar, dispersions and elastic filling and sealing compounds must be allowed to dry completely at least once before they reach their maximum operational integrity and the surfaces can be approved for their intended use.
- **PROFOLIO**, used as a decoupling film, is not a substitute for the installation of expansion joints or planning and adherence to sufficiently sized work zones.
- **PROFOLIO**, used as a sealing film, does not substitute the building seals in accordance with DIN 18195 part 4, 6 and 7 nor the versions in accordance with the flat roof directives.
- Polyethylene has only limited resistance to UV radiation and must be protected against direct sunlight.
- Underfloor heating must be equipped with a warm-up thermostat and must not exceed a surface temperature of 28°C.
- With solid screed floors, there is a risk of installations and walls breaking away due to subsidence or dipping, resulting in tearing or cracking of the floor covering or film in the stress zone.
- Wooden substrates, e.g. wood strip floorings, OSB boards etc. must be bonded rigidly to the supporting substrate. Total deformation may not exceed L/500.
- The mechanical load from wheels/rollers depends on the weight of the rolling load, the type, size and material of the wheel. These parameters result in the relevant wheel compression force. Do not exceed a compression of 2 N/mm² on the upper covering laid over **PROFOLIO**. The breaking strength of the tiles or slabs must be high enough to allow this (> 3500 N if necessary). If the use of industrial trucks is planned, seek advice first regarding their application. The use of lift trucks with metal rollers and polyamide wheels represents a high mechanical load. For this application, **PROFOLIO** is not suitable.
- In general, floor coverings made of tiles and paving are non-flexible. Substrates must therefore not deform or sag under the loads anticipated in the rooms.
- **PROFOLIO** is often used in a wide variety of applications and combinations. The floor covering material may have a number of different qualities. For this reason, our specifications can only provide general information. If special or certain areas of use are not covered, e.g. where unconventional physical or chemical loads are experienced, each individual scenario must be clarified.
- The covering material on walls above the composite seal should not exceed 150 kg/m² with full mortar coverage. The sub-structure's load bearing capacity must be taken into consideration. This must be capable of bearing the attached load with absolutely no bending or infringement of dimensional stability.

All information, references, instructions, basic engineering principles, regulations, standards and expertise are based on German and largely equivalent European regulations and training standards, irrespective of additional country-specific supplements and amendments. All our specifications are based on our experience and careful analysis. We are unable to examine or influence the diversity of associated materials used and the various construction site and processing conditions in detail. Fulfilment of an imposed work order and verifiable functionality of the object therefore depends on the observation of current VOB rules and the recognised rules of technology. Our details do not absolve the accountable planner's and fitter's obligation to assess - on their own authority - the building conditions and practicability of the products. In case of doubt, carry out your own tests or seek technical application advice. Please refer to the laying and processing guidelines of the floor covering manufacturers or the manufacturers of associated products. All product data sheets previously published are superseded by this product data sheet once published.

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