isofloc® pearl



TECHNICAL DATA:

Technical approval		German technical approval Z-23.12-1973	
Composition		EPS, blowing agent, HBCD-free fire protection agent, infrared absorber	
Application		according to German technical approval for core insulation in cavity walls, water-repelling	
Installation		dust-free, perfectly fitting and non-settling blow-in installation by Dämmstatt specialist operators	
Notified Certification Body		MFPA Leipzig	
Colour		light grey	
Form		pearls	
Size		max. 6 mm diameter	
Thermal conductivity λ		0,033 W/(m · K) rated value	
Bulk density		20–25 kg/m³ according to DIN EN 1097-3	
Blowing density		24–26 kg/m³ according to DIN EN 1097-3	
Settled measurement according to area of application "Cavity wall insulation" (German technical approval)		0 %	
Specific heat capacity c		1000 J/(kg · K)	
Reaction to fire		E according to DIN EN 13501-1-1:2010	
	CH	BKZ 3	
Dimensional stability under temperature influence		up to 69 °C	
Water vapour diffusion resistance μ		5 according to DIN EN 12086	
Recycling		can be extracted and injected again	
Packaging		250 I and 500 I PE sacks	
	CH	250 I PE sacks	



The benefits to you with isofloc® pearl:

- heat loss and CO₂ emissions are reduced
- easy to use
- comfort thanks to a higher wall surface temperature
- reduced risk of mould
- combines well with further isofloc insulation measures
- specialist training / qualification

We shall happy to answer any questions you might have:

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Many houses built between 1900 and 1970 have cavity walls. The outer shell, usually a brick facade or plastered masonry, provides protection against the weather. Behind this there is a 40-100 mm cavity. The internal shell is usually the load bearing wall. A lot of valuable heat energy is lost via an un-insulated external wall. Injecting isofloc pearl into the cavity is the answer.



Easy to use

In cavity-wall retrofit solutions, the EPS insulating material is injected though blow-in holes in the facing brick shell and the openings are then sealed with colour-matched plaster or grout. Huge energy savings are possible with this insulation measure. Thanks to the efficient application method, the costs of this energy-improvement measure are very small compared to other insulation solutions.

Further insulation measures

Even the strict energy-saving specifications of the EnEV and KfW are met or even bettered in Germany with the material-typical characteristic values of isofloc pearl. With additional insulation, the cavity wall itself can meet building programme requirements in Switzerland, so that you profit from subsidies. The total energy balance of the building can be further optimised by combining isofloc pearl insulation with further isofloc insulation measures.

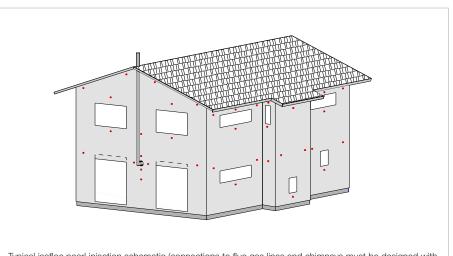
Design requirements

Insulation layers should be at least 30 mm thick. The masonry should be checked for rising damp, structural

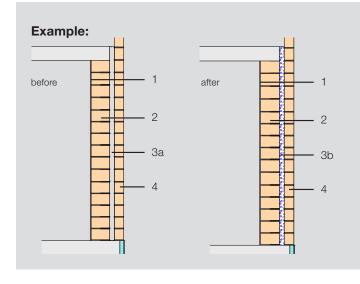
seals, plaster quality and cracks. Openings to adjacent components (verge, eaves, shutter boxes, sockets, strap coilers, etc.) must be sealed. Direct contact with heat-generating installations, fireplaces and exhaust systems (flues) should be avoided or the required clearances maintained.

Large savings potential

The energy required for the manufacture of isofloc pearl is recouped within a few months by the insulation effect. Investment costs are recouped within a few years. The heat loss and CO2 emissions through the exterior wall are reduced by up to 80 %.



Typical isofloc pearl injection schematic (connections to flue gas lines and chimneys must be designed with an A insulation material [D] resp. with an insulation material of fire behaviour group RF1 [CH].)



Insul. thickness	U-value before W/(m² · K)	U-value after W/(m² · K)
4	2,74	0,63
6	2,74	0,45
8	2,74	0,36
10	2,74	0,30

Legend:

1.5 cm lime cement plaster

17,5 cm brick

Lambda 0,99 W/(m · K)

Ventilated cavity (var.) isofloc pearl (var.) 3b

11,5 cm facing brick

Our technical hotline staff will be happy to help you with projectspecific structural engineering calculations and computations and will offer support when tendering.