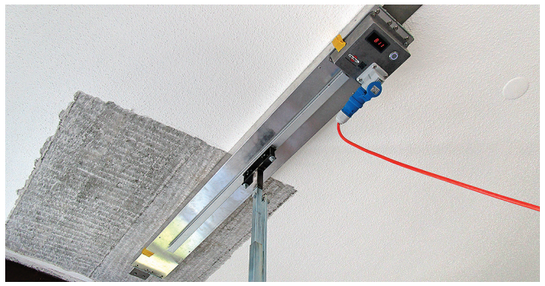
Application equipment for re-plate

re-IR 3000 Infrared heater

«re-IR 3000» infrared heater with mobile and spring support, control module and integrated temperature sensor. The device is designed for a maximum room height of 3.00 m and requires a 3x400V, CEE16 3LNPE power connection on-site.



re-T Support

Quick support with attachable T-piece (length: 1.40 m) for a maximum room height of 3.00 m. The free hanging length of re-plate must be less than 70 cm.

Tested Hilti direct fastening

re-plate was tested as a system with Hilti X-CR 48 P8 S15 nails, which are applied with the appropriate DX 5 powder actuated setting tool.

re-plate:

Dimensions	Cross-section	Prestressing force $F_{p,0}$	Prestressing $\sigma_{p,0}$ *	Relaxation
120/1.5 mm	180 mm²	68 kN	380 N/mm²	15% after t_∞

Maximal stress $f_{s,ud}$ **	Anchorage resistance $F_{s,ud}$ **
610 MPa	109.8 kN

* In case corrosion protection is required max. activating temperature is 165 °C, this results in prestress 300N/mm² (54 kN/re-plate)

** Design value at anchorage failure

Switzerland

re-fer AG
Riedmattli 9
CH-6423 Seewen
T +41 41 818 66 66

Germany

re-fer GmbH
Neuenburger Strasse 37
DE-79379 Müllheim
T +49 151-11333430

re-fer.eu
strengthening solutions

www.re-fer.eu
info@re-fer.eu

re-fer.eu
strengthening solutions

re-plate

Prestressing reinforced concrete.

Application

1 Remove any coatings and/or insulation in the reinforcement area

2 Temporary fixing of re-plate with T-supports

3 Pre-drill supporting surface through pre-punched re-plate Ø 3.5 mm

4 Mechanically end-anchoring with Hilti DX 5 powder activated tool and system-tested stainless steel nails (X-CR 48 P8 S15)

5 Step-wise heating with re-IR 3000 infrared radiant heater

6 Program temperature control during heating via the built-in control unit log

7 Applied and pre-stressed re-plate - load-bearing components can now be removed - if necessary, apply the system-tested Sika fire protection system

Fire protection

re-plate can be protected with various Sika fire protection mortars. For a high degree of reinforcement and residual safety in the event of failure of re-plate under the action of heat, object-specific fire protection measures are required. Depending on the field of application, the easily appliable fire protection measures can be designed based on the valid Sika product documentation.

BUILDING TRUST

Indoor cement-based application:

SikaCem Pyrocoat® "Fire protection spray plaster"
applied by machine

Thickness: approx. 15 -40 mm
Fire resistance depending on requirements

*no adhesive primer on re-plate necessary

Outdoor application/cement-based tunnel construction:

SikaCrete®-213F "Fire protection sprayed mortar"
applied by machine

Layer thickness: mm
Please contact our technical service.

*no adhesive primer on re-plate necessary

For exterior applications, mortars from the Sika Monotop® series are available. Fire protection measures concerning the specified coating thicknesses are standard values and must be adapted to the locally applicable official regulations and the applicable standards.