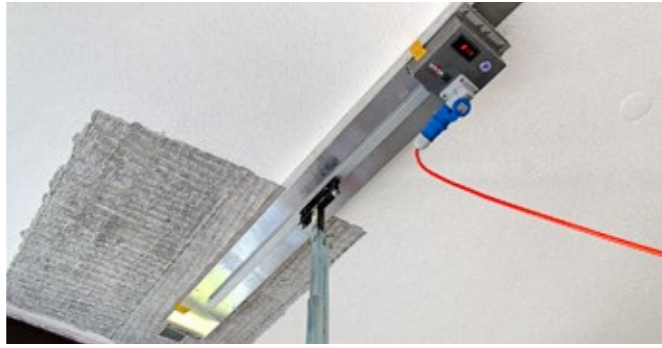


Application equipment for re-plate

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, CEE 16 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.



Dimension	Cross-section	Maximal stress $f_{s,ud}^*$	Anchorage $F_{s,ud}$	Relaxation
120/1.5 mm	180 mm ²	610 N/mm ²	105 kN	15% nach t _∞

** Design value at anchorage failure

	Heating temperature	Prestressing force $F_{p,0}$	Prestressing $\sigma_{p,0}$
Heating by gas burner:	300 - 350 °C	75.5 kN	420 N/mm ²
Heating by infrared transmitter: <small>- in case of flammable material close to the heated zone - in case of corrosion protection on the re-plate</small>	165 °C	54.0 kN **	300 N/mm ²

** A reduced prestress can be obtained with lower heating temperatures

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



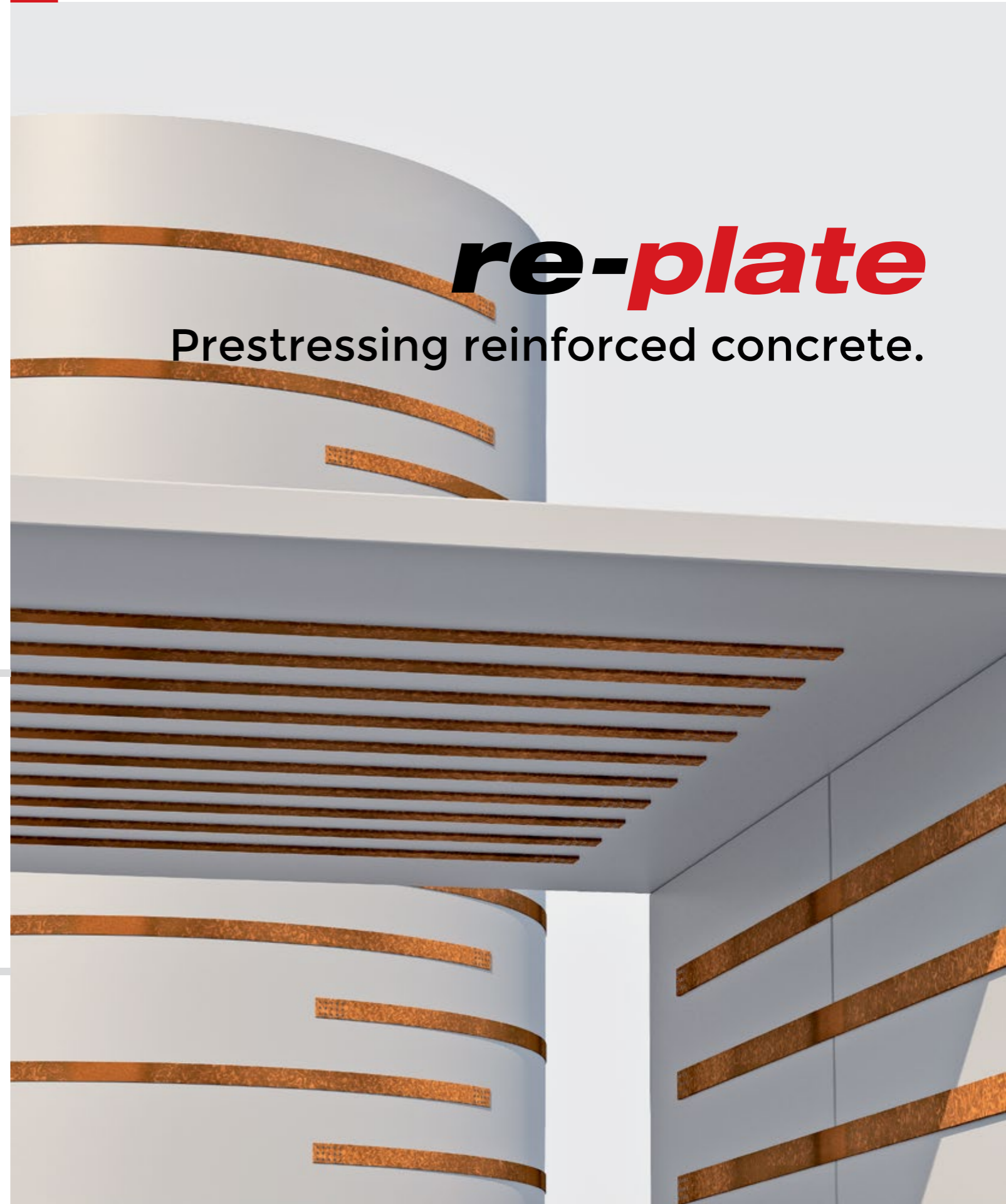
www.re-fer.eu
info@re-fer.eu



Processing guidelines



V05 | 04-2020



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 applicable fire protection measures can be designed based on the valid Sika product documentation.



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.