



REBAR'S NEXT MILESTONE

Reduced embedment depth and
new range of applications with
Hilti HIT-HY 200-R V3



THE NEW INJECTABLE MORTAR HIT-HY 200-R V3

Increased application range and faster installation process



SIMPLIFYING THE TIME-CONSUMING REBAR INSTALLATION PROCESS

Post-installed rebar connections are a key part of construction projects on nearly every building site worldwide. The application scope is broad and ranges from slab-to-slab connections to wall-to-foundation connections in both renovations and new construction projects. But the methods used today do have some drawbacks that impact the construction process – from the difficulty of placing cast-in splices accurately to the danger of damaging rebar and having to live with severe health and safety risks due to the rebar sticking out of concrete slabs.

But a new method of rebar installation changes the game: to make construction sites around the world more productive, efficient and safe, Hilti has come up with a new product with extensive European Technical Assessments (ETAs) optimized for both jobsite conditions and installers.

When it comes to chemical anchors the market comprises a wide range of different brands and products. The multifaceted product and approval landscape for the wide variety of rebar applications available adds further complexity to your work. It is not only choosing the right product per application that eats up valuable resources – managing stock and availability takes time too.

Now, you can say goodbye to that immense time investment: We at Hilti have developed the new HIT-HY 200-R V3 injection mortar to perform every type of post-installed rebar concrete connection for applications requiring 100-year design life: from simply supported to moment-resisting to standard splices. This makes product selection incredibly easy.





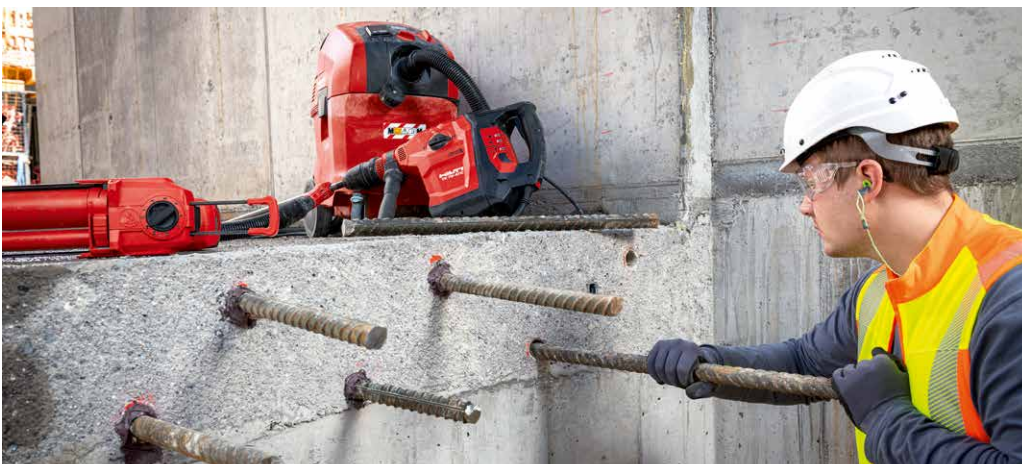
ONE HIGH-PERFORMING MORTAR FOR MORE REBAR APPLICATIONS

The HIT-HY 200-R V3 has been ETA assessed for all rebar connections, including the newest assessment criteria EAD 332402. This increases safety during application and makes for quick and easy documentation for your jobsite inspections. HIT-HY 200-R V3 is the only mortar you need for all your rebar connections, thus reducing complexity on the jobsite and in the warehouse.

You will also benefit from the simple installation method of the HIT-HY 200-R V3, which has been proven on jobsites worldwide. To minimize installation errors, the injection mortar HIT-HY 200-R V3 also comes with Hilti's SafeSet system. The Hilti SafeSet system performs equally well in dry and wet concrete and eliminates the most performance-affecting and time-consuming step in the installation process: cleaning the drilled hole

before injection of the adhesive. HIT-HY 200-R V3 has an ETA assessment for both hammer drilling and diamond coring, giving you the flexibility to decide while you are on the job.

This will also free up time to fully focus on what matters: finishing the project well, on time, and within budget.



A WINNING COMBINATION

HIT-HY 200-R V3 and the new TR 069 EOTA design method



A NEW WAY TO DESIGN REBAR

Current design guidelines based on EC2 only foresee connections with straight rebar. On the jobsite, this means costly, labor-intensive lap splices. In new construction, bent cast-in (L or U shaped) rebars need to be produced and placed in a precise location according to the design specifications. In renovation projects embedment depths of several meters are very common and lead to heavy drilling operations.

After several years of intensive research, EOTA came up with a brand-new design method (TR 069). As a result, Hilti designed a new product – the Hilti HIT-HY 200-R V3. This product has strong ETAs related to the available design concepts, as well as new software, PROFIS Rebar, for convenient design and the creation of all necessary documentation.

HIT HY 200-R V3 and the new TR 069 design method allow for the execution of post-installed rebar connections with a bending moment thus eliminating the need for a lap splice.

Additionally, the new TR 069 design method allows for the creation of a performance-based rebar design. As HIT-HY 200-R V3 has a superior bond strength, it leads to designs with shorter embedment depth that can carry the same load. Rebars with shorter embedment mean direct savings of time and money for you on the jobsite.

To leverage these benefits, the mortar used requires a European Technical Assessment (ETA) based on EAD 332402-00-0601. As a result, the specifications of the HIT-HY 200-R V3 shouldn't be changed to other mortars without the respective ETAs because this would compromise the design.

And that's not all: HIT-HY 200-R V3 has a 100-year lifetime ETA assessment, adding to your peace of mind.

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▶ [SHOULD WE CONTACT YOUR PLANNER/SPECIFIER? – CLICK HERE](#)


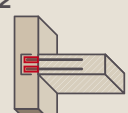
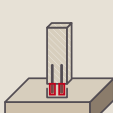
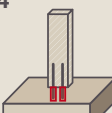
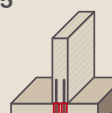
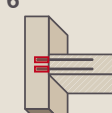
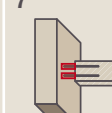
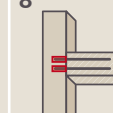


CLEAR ADVANTAGES FOR YOUR JOBSITE

Hilti HIT-HY 200-R V3 can help improve your rebar workflow:

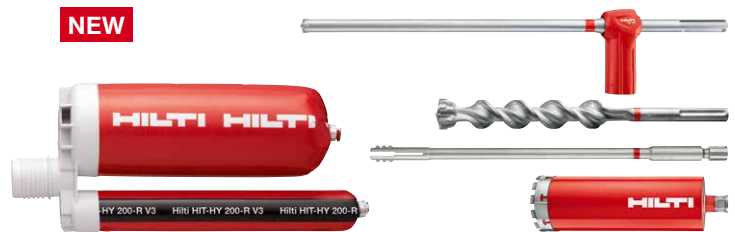
- Reduced embedment depth due to the superior performance of HIT-HY 200-R V3
- HIT-HY 200-R V3 and the new design method TR 069 cover more rebar applications
- HIT-HY 200-R V3 is the only mortar that has a European Technical Assessment (ETA) based on EAD 332402-00-0601
- Lasting, safer post-installed rebar connections that hold true for up to 100 years
- Increased flexibility during planning, detailing and placing of rebar
- Decreased number of interruptions in the construction process due to partial demolition
- Reduced safety risks related to cast-in rebar sticking out of the concrete

TR 069

Connection type	Rigid connection with splice			Rigid or flexible connection without splice				
Element	1 	2 	3 	4 	5 	6 	7 	8 
Design method	EC2			TR 069 / EC2				

OUTSTANDING

HIT-HY 200-R V3 is your new ultimate mortar for all rebar applications



HIT-HY 200-R V3

Ultimate-performance fast curing injection mortar

Features

High reliability and productivity. One mortar for all rebar applications:

- ETA for rebar connections according to EC2
- ETA for rebar connections according to TR 069
- 100-year design life assessment

Drilling method

- Hammer drilling (TE-CX/YX)
- Hammer drilling (TE-CD/YD) with automatic hole cleaning (SafeSet)
- Diamond drilling in combination with Hilti Roughening Tool RT

Borehole cleaning

- Automatic hole cleaning (SafeSet)
- Manual cleaning
- Compressed air cleaning

Diameter of anchor

- Anchor rod B500-B, Ø 8–32 mm
- Anchor HZA-R, M12–M24

In-service temperature – range

-10°C to +40°C

Working / curing time (at +20°C)

15 min / 90 min

Cartridge volume

330 ml, 500 ml



HIT-RE 500 V3

Ultimate-performance slow curing epoxy resin mortar

High performance even in diamond drilled and water filled boreholes. The special mortar for:

- Long working times
- Special conditions like diamond drilled holes, underwater use
- ETA for rebar connections according to EC2

- Hammer drilling (TE-CX/YX)
- Hammer drilling (TE-CD/YD) with automatic hole cleaning (SafeSet)
- Diamond drilling

- Automatic hole cleaning (SafeSet)
- Manual cleaning
- Compressed air cleaning

- Anchor rod B500-B, Ø 8–40 mm
- Anchor HZA-R, M12–M24

–5°C to +40°C

30 min / 420 min

330 ml, 500 ml, 1 400 ml

HIT-HY 170

Premium-performance fast curing universal mortar

Universal solution for post-installed rebar and anchors in concrete and masonry:

- ETA for rebar according to EC2

- Hammer drilling (TE-CX/YX)
- Hammer drilling (TE-CD/YD) with automatic hole cleaning (SafeSet)

- Automatic hole cleaning (SafeSet)
- Manual cleaning
- Compressed air cleaning

- Anchor rod B500-B, Ø 8–25 mm

–5°C to +40°C

5 min / 90 min

330 ml, 500 ml

▶ INTERESTED? CLICK HERE TO GET A PRODUCT DEMO

HIGHER PRODUCTIVITY FOR YOUR JOBSITE

Hilti SafeSet offers fast and easy drilling without the need to clean the hole



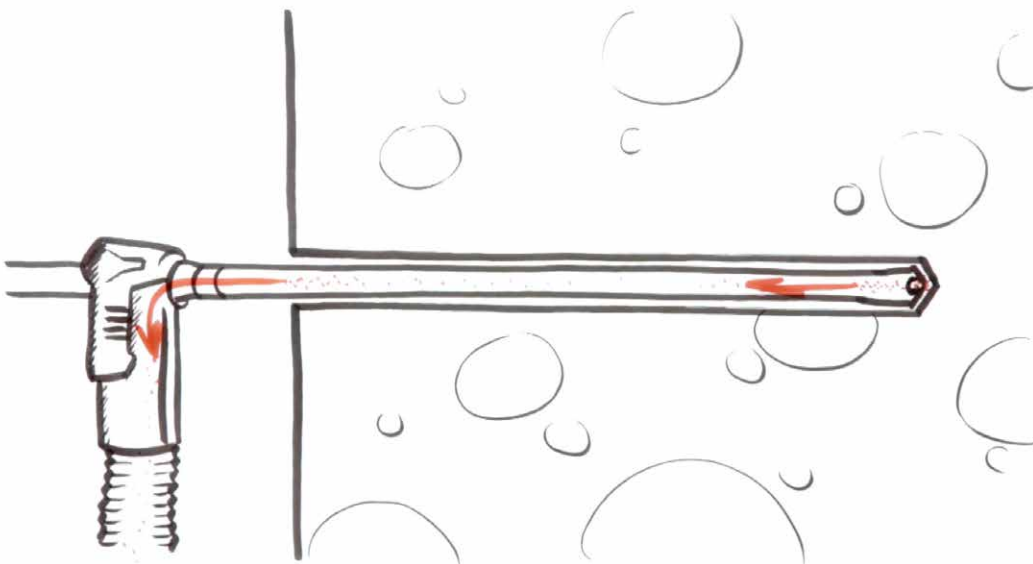
SYSTEMATICALLY BETTER

The unique Hilti SafeSet technology makes the time-consuming and load-influencing manual borehole cleaning obsolete by automating it. Engineers can be confident that the anchor is bearing the loads it is designed to and project managers on the jobsite can execute rebar installation fast with minimal labor to stay on project schedule.

To make the installation on the jobsite as easy and as safe as possible, Hilti developed the SafeSet system. Using a hollow drill bit connected to a vacuum (e.g. Hilti vacuums VC 40-U or VC 20-U), the borehole is cleaned automatically while drilling.

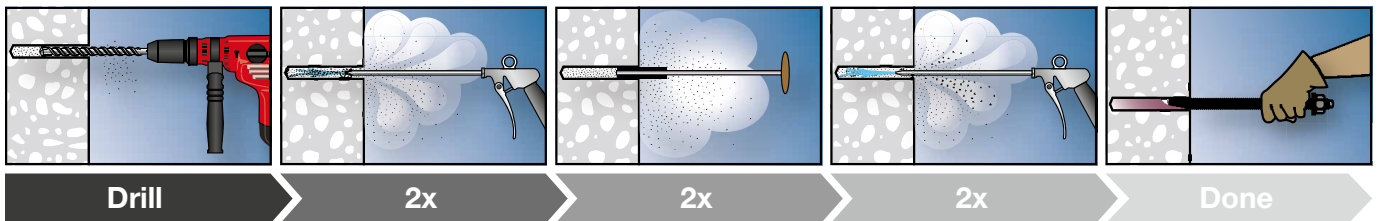
This installation method is fully covered by ETA. The time-consuming and dusty cleaning process, that can affect your installers' health, is completely avoided. At the same time, optimal bonding of the mortar to the concrete is ensured and the risk of installer error is minimized. Additionally, diamond coring can be used within the ETA framework in combination with a Hilti roughening tool as part of SafeSet.

The load-bearing capacity of post-installed rebar depends on the correct installation. Cleaning the hole correctly and preventing air bubbles in the mortar are crucial in that respect.





Traditional method



HIT-HY 200-R V3 system with hollow drill bit and VC 20/40 wet and dry vacuum cleaner



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LEVERAGE THE FULL SYSTEM

Increased productivity and lower costs for your jobsite



EASY AND COST-EFFICIENT MORTAR DISPENSING

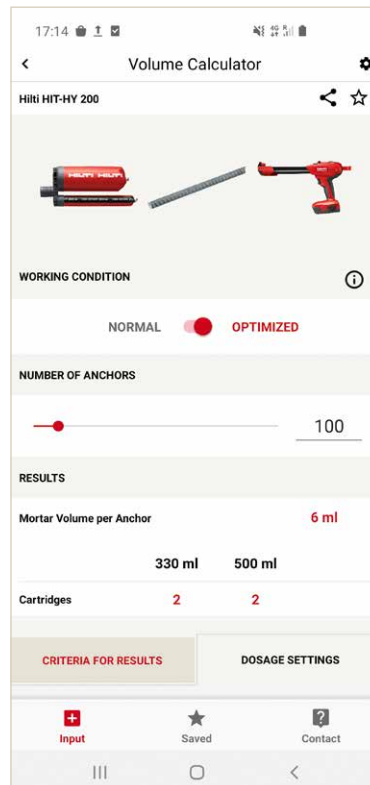
Air bubble-free filling of the drilled hole can be carried out in a very convenient and effortless manner by using the HDE A22 battery dispenser with the Hilti HIT-SZ piston plug accessory. Thanks to the automatic working mode, the volume of the mortar dispensed is always the same, ensuring proper installation per specification. Furthermore, the HDE features automatic piston return to prevent dripping and mortar wastage.



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AUTOMATIC MORTAR DOSAGE VIA HILTI APP

Using the Hilti Volume calculator app, the exact mortar volume can be calculated in advance. In addition, the app also displays the right dispenser setting. Based on the number of rebars to be installed, the app automatically calculates the number of cartridges needed, thus helping preplanning for your jobsite.



[▶ DOWNLOAD VOLUME CALCULATOR APP](#)



SAVING MONEY WITH THE FULL HIT-HY 200-R V3 SYSTEM

Hilti's new HIT-HY 200-R V3 has greater bond strength than other mortars for rebar applications. This allows designers to utilize full mortar performance which, in turn, leads to design with shorter embedment depths. Reduction of embedment translates into direct financial savings for you in the form of less labor (less drilling time) and lower material costs (less mortar, fewer drills).

Additionally, SafeSet also has a proven track record when it comes to boosting jobsite safety because it helps to ensure constant safe and hassle-free installation, reduces rework and keeps installer mistakes to a minimum. Meanwhile, the HDE battery-powered dispenser saves you money by reducing mortar wastage.

SAFESET

EFFICIENT DESIGN WITH PROFIS REBAR SOFTWARE

All your moment resisting rebar installations can be designed fast, easily and for free in PROFIS Rebar – either inhouse or with your external planning office. With this software, you can also design and document code compliant post-installed rebar for concrete-to-concrete connections according to all the latest guidelines and norms (e.g. TR 069, EC2). If your specific design is not covered by a code, PROFIS Rebar allows you to use the Hilti calculation method.



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