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Company:  
 Address:  
 Phone | Fax: |  
 Design: Kalken Sangduan  
 Fastening point:

Page: 1  
 Specifier:  
 E-Mail:  
 Date: 2022-05-16

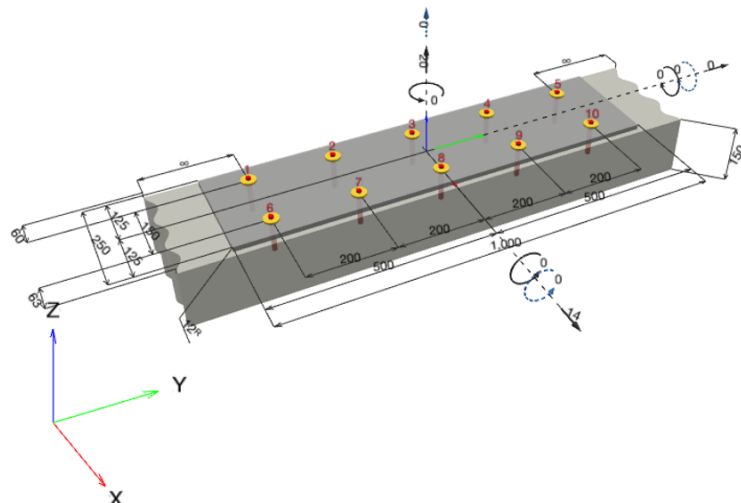
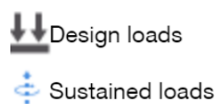
**Specifier's comments:**

**1 Input data**

<b>Anchor type and diameter:</b>	<b>HIT-HY 200-R V3 + Rebar 12mm</b>	
Return period (service life in years):	50	
Item number:	not available (element) / 2262134 HIT-HY 200-R V3 (adhesive)	
<b>Filling set or any suitable annular gap filling solution</b>		
Effective embedment depth:	$h_{ef,act} = 70.0 \text{ mm}$ ( $h_{ef,limit} = - \text{ mm}$ )	
Material:	B500B	
Evaluation Service Report:	ETA 19/0601	
Issued   Valid:	2021-12-02   -	
Proof:	Engineering judgement SOFA BOND - based on ETAG BOND testing	
Stand-off installation:	$e_b = 0.0 \text{ mm}$ (no stand-off); $t = 12.0 \text{ mm}$	
Anchor plate <sup>R</sup> :	$l_x \times l_y \times t = 250.0 \text{ mm} \times 1,000.0 \text{ mm} \times 12.0 \text{ mm}$ ; (Recommended plate thickness: not calculated)	
Profile:	no profile	
Base material:	cracked concrete, C30/37, $f_{c,cube} = 37.00 \text{ N/mm}^2$ ; $h = 150.0 \text{ mm}$ , Temp. short/long: 40/24 °C	
<b>Installation:</b>	<b>hammer drilled hole, Installation condition: Dry</b>	
Reinforcement:	no reinforcement or reinforcement spacing $\geq 150 \text{ mm}$ (any $\emptyset$ ) or $\geq 100 \text{ mm}$ ( $\emptyset \leq 10 \text{ mm}$ ) no longitudinal edge reinforcement	

<sup>R</sup> - The anchor calculation is based on a rigid anchor plate assumption.

**Geometry [mm] & Loading [kN, kNm]**





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1.1 Load combination

Case	Description	Forces [kN] / Moments [kNm]	Seismic	Fire	Max. Util. Anchor [%]
1	Combination 1	N = 20.000; $V_x = 14.000$ ; $V_y = 0.000$ ; $M_x = 0.000$ ; $M_y = 0.000$ ; $M_z = 0.000$ ;	no	no	47

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## 2 Proof I Utilization (Governing Cases)

Loading	Proof	Design values [kN]		Utilization	Status
		Load	Capacity	$\beta_N / \beta_V$ [%]	
Tension	Combined pullout-concrete cone failure	20.000	74.452	27 / -	OK
Shear	Concrete edge failure in direction x+	14.000	30.383	- / 47	OK

Loading	$\beta_N$	$\beta_V$	$\alpha$	Utilization $\beta_{N,V}$ [%]	Status
Combined tension and shear loads	0.269	0.461	1.500	46	OK

## 3 Warnings

- Please consider all details and hints/warnings given in the detailed report!

**Fastening meets the design criteria!**



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#### 4 Remarks; Your Cooperation Duties

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