

# PRODUCT 1360

## PANELS

### THYSSEN-KRUPP-HOESCH

#### Type ST3V – DOORELEMENTS 610

#### Double coated RAL 9002

- Exterior stucco. Made from 0.5 mm galvanized sendzimir processed (ZA 255) coiled steel.
- Inside flat surface. Made from 0.5 mm galvanized sendzimir processed (ZA 255) coiled steel.
- The outer plating is double coated with a thickness of 25 µm.  
(total corrosion protection layer thickness 38 µm / base coat polyvinylflourid)
- The inner plating is double coated with a layer thickness of 12 µm.  
(total corrosion protection layer thickness 25 µm / base coat polyester)
- The inside of the panels is always standard RAL 9002.
- Working height panels : 610 mm and a thickness of 39.5 mm (+0 / -1).
- The thermal insulation is a polyurethane (closed cell) foam.  
 $K = 0,54 \text{ W} / \text{m}^2 \text{ K}$  - Thermal resistance  $^1/\Delta = 1,67 \text{ m}^2\text{K}/\text{W}$ .
- The flammability of PU is class B3 / DIN 4102.
- Sound insulation is (R<sup>1w</sup>) 26 dB.
- Calculation weight is 10.8 KG / M<sup>2</sup>.
- The panels are CFC and H-CFC Free.

Static value: Plate thickness  $t_N$  / panel thickness  $a$  / zinc layer thickness  $t_z$  / panel height  $B$

FORMULA:  $I_X = A_1 \times A_2 \times a^2 : A_1 + A_2$  ( $A_1 = [t_N - t_z] \times B$  en  $A_2 = [t_N - t_z] \times B$ ),  $W_X = I_X : a_1$  en  $a_1 = a : 2$

$A_1 = [t_N - t_z] \times B = (0,5 - 0,0255) \times 610 = 289,445 \text{ mm}^2$  ( $A_1 = A_2$ )

$I_X = 289,445 [\text{mm}^2] \times 289,445 [\text{mm}^2] \times 1600 [\text{mm}^2] : 578,89 [\text{mm}^2] = 231.556 \text{ mm}^4$

$W_X = I_X : a_1 / a_1 = a : 2 = 39,5 : 2 = 19,75$

$W_X = 231.556 [\text{mm}^4] : 19,75 [\text{mm}] = 11724,35 \text{ mm}^3$

## OVERVIEW IMPACT TEMPERATURE / WIND PRESSURE / WIND SUCTION

Door width	<u>3000 mm</u>	<u>3500 mm</u>	<u>4000 mm</u>	<u>4500 mm</u>	<u>5000 mm</u>
bending horizontal door leaf	2,9 mm	4,8 mm	7,6 mm	11,4 mm	16,7 mm
temperature difference 30° C RAL 9002	10,8 mm	14,7 mm	19,2 mm	24,3 mm	30,0 mm
temperature difference 50° C RAL 8016	18,0 mm	24,5 mm	32,0 mm	40,5 mm	50,0 mm
Wind pressure 0,60 kN/m <sup>2</sup>	15,3 mm	25,4 mm	40,1 mm	60,7 mm	88,6 mm
Wind suction 0,40 kN/m <sup>2</sup>	10,2 mm	17,0 mm	26,7 mm	40,4 mm	59,0 mm

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