

TO WHOM IT MAY CONCERN

Recommendations for fabricating Swisspearl panels with horizontal cutting equipments

Following criteria should be met to ensure an optimal cutting quality with a satisfactory working speed.

The saw blade

Best appropriate to cut Swisspearl cement composite panels are saw blades with staggered teeth (trapezoidal/flat) tipped with hard metal and designed with a 5° rake angle (a).

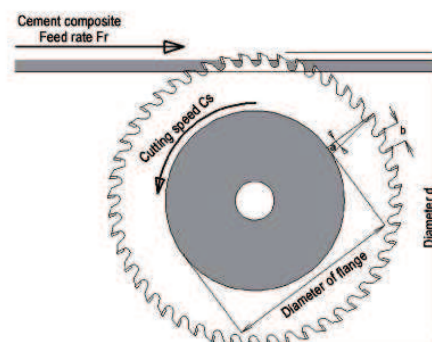
Teeth arrangement (b) on the blade should feature a 10-15 mm space between each tooth.



Adjustments

Difference between the entry and exit angle of the tooth should be small to get splinter-free cuts.

To avoid breaking the blade through vibrations, the diameter of the clamping flange should correspond to 2/5 to 2/3 of the diameter of the saw blade (d).



When cutting coated panels use a minimum feed rate of 0.12 mm per tooth.

Reckoning the cutting data

Indicative value for feed speed (Fs)

Fs = 15-20 m/s

m = meter

Indicative value for feed rate per tooth (ft)

Ft = 0.12 – 0.2 mm

Revolutions R

D = diameter of the saw blade

$\Pi = 3.14$

R = number of revolutions of drive shaft per minute

$$R = \frac{F_s \times 1000 \times 60}{D \times \Pi} \text{ R/min}$$

Feed speed Fs

ft = feed rate per tooth

t = number of teeth

R = number of revolutions of drive shaft per minute

$$F_s = \frac{F_t \times t \times R}{1000} \text{ Metre/min}$$

Do not use

Silicon carbide grinding wheels and diamond cutting discs are not appropriate to cut cement composite panels.