

# POWER BOARD<sup>®</sup>



**2.1 & 3.0**  
IN COMPARISON



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**Weight** 22 kg  
**Colour** white | black  
**Frequency** 5,6 – 13,6 Hz  
**Speed** 1 – 20  
**Amplitude** 3,5 – 9 mm  
**Throw** 0 – 18 mm  
**Motor** Long life 250W  
**Feet** Diameter 55 mm  
 10 mm cushion  
**Target group** Fitness beginners, home use,  
 Best Ager

**Weight** 26 kg  
**Colour** grey | black  
**Frequency** 8 – 22 Hz  
**Speed** 1 – 99  
**Amplitude** 1,5 – 4,5  
**Throw** 0 – 9 mm  
**Motor** Long life 250W  
**Feet** Diameter 80 mm  
 20 mm cushion  
**Target group** Athletes, sports players, soccer play-  
 ers, advanced fitness enthusiasts



## GENERAL INFORMATION ABOUT THE POWERBOARDS

**FREQUENCY** A range from 1 – 30 Hz is common for side-alternating systems. Depending on the training objective, attention should be paid to the relevant area:

**Low frequencies** between 1 and 12 Hz are suited for the sense of balance and for mobilisation and loosening. Below the frequency of approx. 10 Hz, your sense of balance actively intervenes in the movement and the body tries to actively compensate the movement of the PowerBoard. Above a

frequency of approx. 10 Hz to 12 Hz, your sense of balance is too slow to react adequately to the movement. This is why the reflex-based regulation then coordinates the movement via the spinal cord – the stretch reflex gets activated.

In the **middle range** of 12 – 20 Hz, the musculature receives powerful blood circulation and can stretch well. In this range, the musculature can tense and relax alternately based on stretching reflexes. This frequency range is therefore ideal for stretching and loosening tense muscles. How-

ever, it also serves to coordinate and train the interaction of the muscles in the body – i.e. the optimal function of a muscle in the chain of all other muscles which are required for the current training movement.

At **higher frequencies** of approx. 20 Hz, optimal performance for increasing muscle mass can be achieved. Above this frequency, the time per single movement is too short to allow the muscle to completely relax. Accordingly, as the frequency increases, the muscle tone increases, the muscle

must continue to tense or keep tensing incrementally. This frequency range is therefore ideal for training muscle strength and thus build muscle mass in the fast muscles.

For people of „normal fitness“, an exception would be for example top-class sportsmen such as sprinters, an increase of the frequency to over 30 Hz has limited feasibility since the muscle is usually overtaxed with the additional stimulus and no increase in performance can be achieved. The maximum speed of movement depends on

the individual's disposition and training condition and should be adjusted accordingly.

### QUALITY OF HOUSING AND FRAME

The Casada PowerBoards have thick, solid steel frames, which can be easily seen from the high weight. The housing is made of special hard plastic materials. In addition, both boards have special feet, which minimise the impact on the floor.

### AMPLITUDE | HUB

The greater the amplitude, the stronger the training stimulus. A higher amplitude means, for one, stronger stretching of muscles and tendons. The movement speed of the board increases at the given frequency and increasing amplitude. In summary, the amplitude can be used to influence both the degree of stretch and the maximum speed of movement. The appropriate frequency range should therefore be selected depending on the desired training objective.