PW-5 Smyk

Design and Construction

- The structure is all glass-epoxy composite.
- The wings are of trapeze contour with bow-shaped ends, shoulder-set on the fuselage, having a monospar structure with sandwich shells.
- Schempp-Hirth-type air brakes extend on the upper wing surface only.
- Fuselage shell of glass-epoxy composite monocoque structure, stiffened with frames.
- Fabric covered rudder.
- Fixed undercarriage consisting of main wheel behind the pilot, with shock absorber and drum brake, a smaller front wheel and a tail skid with a diminutive wheel to prevent scraping on the ground if over rotation takes place.

Flying, Safety, and Operational Qualities

- Most people agree the PW-5 is very easy and fun to fly. Control harmonization is fair: extremely light ailerons, light elevator, stiff rudder. The elevator is not mass balanced and gives positive feedback in gusts to get used to. The roll rate is average in spite of the lively feel to the ailerons.
- Low speed handling is nice but not fool-proof. Spin entry may not be immediately obvious to low time pilots in high stress situations. This has been a factor in accidents.
- Crashworthy cockpit as demonstrated by accidents in which the glider was destroyed without any harm to the occupant.
- Good cockpit ergonomics, but poor visibility to the rear.
- Undercarriage arrangement, fuselage shape, high-set wings and cruciform tail reduce the risk of damage in out-landings.
- Very easy ground handling, assembly and disassembly.

Competition class	World Class
Wingspan	13.44 m (44.1 ft)
Wing area	10.16 m² (109.4 sq ft)
Aspect ratio	17.8
Wing profile	NN 18-17
Empty mass	190 kg (419 lb)
Maximum mass	300 kg (661 lb)
Wing loading	33 kg/m² (5.6 lb/sq ft)

Maximum speed	220 km/h (119 knots)
Speed in rough air	147 km/h (79 knots)
Stall speed	60 km/h (32 knots)
Minimum sink rate	0.65 m/s at 74 km/h (130 ft/min at 40 knots)
Best glide ratio	32 at 80 km/h (44 knots)
Roll rate	5 s at 85 km/h (46 knots) -45° to +45° bank