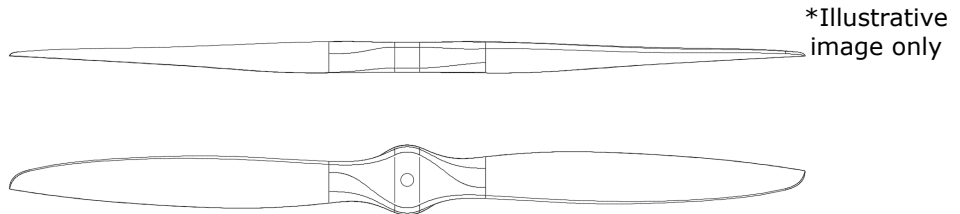


# PROPELLER

## 27x10 2B GAS

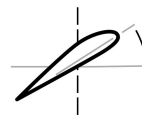
PN: 227100



219 g  
Mass



27.0"  
Diameter



10.0"  
Pitch



Fixed wing

Engine/Motor type: Gas

Rotation direction: Counter-clockwise (Direction Guide)

Mass [g]:  $219 \pm 6.0\%$

Moment of inertia [ $\text{kgm}^2$ ]<sup>1</sup>:  $8.58\text{e-}03$

Core diameter [mm]: 46 (Drilling guide)

Limit RPM<sup>2</sup>: 6600

Working temperature [°C]: from -20°C to 60°C

Production method: Wet layup

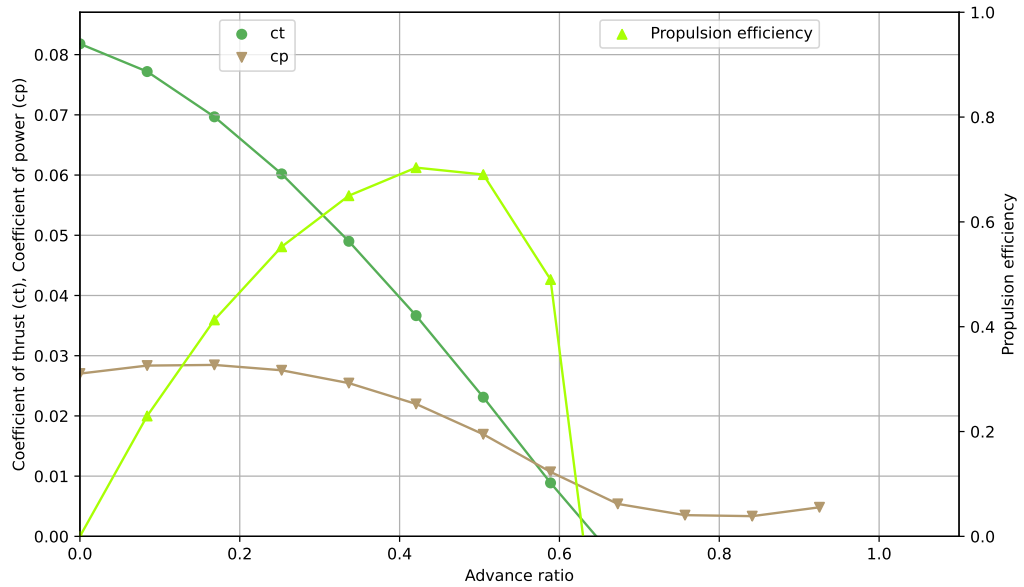
<sup>1</sup> Moment of inertia is only an estimation:  $I = \frac{1}{24} \cdot \text{mass} \cdot \text{diameter}^2 \cdot n^{\circ} \text{ of blades}$

<sup>2</sup> RPM is limited by tip speed; forward speed reduces the limit.

For more information or custom propeller options, contact [info@mejzlik.eu](mailto:info@mejzlik.eu).  
Operation manual: Propeller Maintenance and Repair Manual

# Dynamic Performance Data

Simulated data - at 5200 RPM



| v_inf | Ct      | Cp     | Propulsion efficiency | Advance ratio |
|-------|---------|--------|-----------------------|---------------|
| 0.0   | 0.0818  | 0.027  | 0.0                   | 0.0           |
| 5.0   | 0.0772  | 0.0284 | 0.2297                | 0.0841        |
| 10.0  | 0.0697  | 0.0285 | 0.4131                | 0.1682        |
| 15.0  | 0.0602  | 0.0276 | 0.5526                | 0.2524        |
| 20.0  | 0.049   | 0.0254 | 0.65                  | 0.3365        |
| 25.0  | 0.0367  | 0.022  | 0.7035                | 0.4206        |
| 30.0  | 0.0231  | 0.0169 | 0.6903                | 0.5047        |
| 35.0  | 0.0089  | 0.0107 | 0.4901                | 0.5889        |
| 40.0  | -0.0042 | 0.0054 | -0.522                | 0.673         |
| 45.0  | -0.0129 | 0.0035 | -2.7887               | 0.7571        |
| 50.0  | -0.0194 | 0.0034 | -4.8834               | 0.8412        |
| 55.0  | -0.023  | 0.0048 | -4.4262               | 0.9254        |

$$C_T = \frac{T}{\rho R P S^2 D^4}$$

$$C_P = \frac{P_{mech}}{\rho R P S^3 D^5}$$

$$\eta = \frac{C_T \cdot J}{C_P}$$

$$J = \frac{v_{inf}}{n \cdot D}$$