

# Pałacowe #1 Polish Pale Ale - Browar na Wyżynie

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **21**
- SRM **5.7**
- Style **Specialty Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **6 %**
- Size with trub loss **22.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **26.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **26.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale Viking Malt	3.5 kg (70%)	80 %	6
Grain	monachijski typ II Viking Malt	1 kg (20%)	78 %	22
Grain	płatki owsiane błyskawiczne	0.5 kg (10%)	70 %	1

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Pałacowy (PL)	10 g	60 min	8.5 %
Boil	Pałacowy (PL)	10 g	20 min	8.5 %
Aroma (end of boil)	Pałacowy (PL)	30 g	5 min	8.5 %
Whirlpool	Pałacowy (PL)	75 g	0 min	8.5 %
Dry Hop	Pałacowy (PL)	75 g	3 day(s)	8.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	11 g	---

## Extras

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Type	Name	Amount	Use for	Time
Water Agent	woda demineralizowana	20000 g	Mash	70 min
Water Agent	chlorek sodu	3 g	Mash	70 min
Water Agent	siarczan wapnia	3 g	Mash	70 min
Water Agent	kwas fosforowy 75%	4 g	Mash	70 min
Fining	Mech irlandzki	1 g	Boil	15 min

## Notes

- Profil wody:

Ca+2 Mg+2 Na+ Cl- SO4-2 HCO Alkalinity Residual  
53.3 3.2 41.6 65.4 63.0 4.3 5.2 -34.7

SO42-/Cl- ratio: 1.2 Balanced

<https://www.brewersfriend.com/mash-chemistry-and-brewing-water-calculator/?id=8XFX0ZS>  
*Jul 12, 2018, 4:12 PM*

- Chmielnie na whirlpool start w 80C 15 minut.  
*Jul 18, 2018, 1:25 PM*