

# 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*