

# Polish Brut IPA #1 - Browar na Wyżynie

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **22**
- SRM **2.6**
- 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 **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.1 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 **60 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

## Fermentables

| Type  | Name                           | Amount     | Yield | EBC |
|-------|--------------------------------|------------|-------|-----|
| Grain | Premium Pilsner ®<br>Weyermann | 4 kg (80%) | 81 %  | 2   |
| Grain | płatki ryżowe<br>błyskawiczne  | 1 kg (20%) | 70 %  | 1   |

## Hops

| Use for    | Name                        | Amount | Time     | Alpha acid |
|------------|-----------------------------|--------|----------|------------|
| First Wort | Puławski (PL) -<br>granulat | 1 g    | 90 min   | 6 %        |
| Whirlpool  | Oktawia (PL) -<br>granulat  | 30 g   | 15 min   | 9 %        |
| Whirlpool  | Puławski (PL) -<br>granulat | 30 g   | 15 min   | 6 %        |
| Whirlpool  | lunga (PL) - granulat       | 30 g   | 15 min   | 11 %       |
| Whirlpool  | Oktawia (PL) -<br>granulat  | 20 g   | 0 min    | 7.8 %      |
| Whirlpool  | Puławski (PL) -<br>granulat | 20 g   | 0 min    | 6 %        |
| Whirlpool  | lunga (PL) - granulat       | 20 g   | 0 min    | 11 %       |
| Dry Hop    | Oktawia (PL) -<br>granulat  | 50 g   | 3 day(s) | 7.8 %      |
| Dry Hop    | Puławski (PL) -<br>granulat | 49 g   | 3 day(s) | 6 %        |

|         |                       |      |          |      |
|---------|-----------------------|------|----------|------|
| Dry Hop | lunga (PL) - granulat | 50 g | 3 day(s) | 11 % |
|---------|-----------------------|------|----------|------|

## Yeasts

| Name  | Type | Form  | Amount | Laboratory       |
|---|------|-------|--------|------------------|
| 3 pokolenie FM54<br>Gorączka<br>kalifornijska | Ale  | Slant | 300 ml | Fermentum Mobile |

## Extras

| Type        | Name                  | Amount  | Use for | Time   |
|-------------|-----------------------|---------|---------|--------|
| Water Agent | Woda demineralizowana | 15000 g | Mash    | 90 min |
| Water Agent | Siarczan magnezu      | 7 g     | Mash    | 90 min |
| Water Agent | Chlorek wapnia        | 6 g     | Mash    | 90 min |
| Water Agent | Kwas fosforowy 75%    | 7 g     | Mash    | 90 min |
| Other       | Glukoamylaza          | 3 g     | Mash    | 30 min |
| Other       | Pożywka dla drożdży   | 3.5 g   | Boil    | 15 min |
| Fining      | Mech irlandzki        | 3 g     | Boil    | 15 min |

## Notes

- Glukoamylaza dodana do brzezki. Temperatura brzezki około 60C.

Drugi whirlpool temp < 80C 30min

<https://www.brewersfriend.com/mash-chemistry-and-brewing-water-calculator/?id=R1SXPH9>

Ca+2 Mg+2 Na+ Cl- SO4-2 HCO  
125.1 32.4 5.0 95.6 95.1 69.436  
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