

# Czarnogród

- Gravity **9.5 BLG**
- ABV ---
- IBU **21**
- SRM **22.8**
- Style **Grodziskie**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **25.8 liter(s)**

## Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **14.8 liter(s)**

## Steps

- Temp **66.3 C**, Time **40 min**
- Temp **71.2 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **11.5 liter(s)** of strike water to **72.9C**
- Add grains
- Keep mash **40 min** at **66.3C**
- Keep mash **30 min** at **71.2C**
- Keep mash **1 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **25.8 liter(s)** of wort

## Fermentables

| Type  | Name                               | Amount         | Yield | EBC  |
|-------|------------------------------------|----------------|-------|------|
| Grain | Grodziski pszeniczny wędzony dębem | 0.9 kg (27.3%) | 80 %  | 3    |
| Grain | Płatki owsiane                     | 0.4 kg (12.1%) | 85 %  | 3    |
| Grain | Weyermann - Carafa II Special      | 0.3 kg (9.1%)  | 65 %  | 1150 |
| Grain | Abbey Malt Weyermann               | 0.3 kg (9.1%)  | 75 %  | 45   |
| Grain | Weyermann - Smoked Malt            | 1.4 kg (42.4%) | 81 %  | 6    |

## Hops

| Use for             | Name     | Amount | Time   | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil                | Premiant | 7 g    | 60 min | 7 %        |
| Boil                | Premiant | 9 g    | 30 min | 9 %        |
| Aroma (end of boil) | Marynka  | 15 g   | 10 min | 9 %        |
| Whirlpool           | Marynka  | 7 g    | 0 min  | 9 %        |
| Whirlpool           | Premiant | 6 g    | 0 min  | 7 %        |

## Yeasts

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

| <b>Name</b> | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|-------------|-------------|-------------|---------------|-------------------|
| Safale S-04 | Ale         | Dry         | 13 g          | ---               |

### **Extras**

| <b>Type</b> | <b>Name</b>    | <b>Amount</b> | <b>Use for</b> | <b>Time</b> |
|-------------|----------------|---------------|----------------|-------------|
| Fining      | Mech irlandzki | 5 g           | Boil           | 15 min      |