

# Czekoladowy Stout

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **29**
- SRM **30.1**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **22.6 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **17 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type    | Name                        | Amount         | Yield  | EBC  |
|---------|-----------------------------|----------------|--------|------|
| Grain   | BESTMALZ - Best Pilsen      | 4.1 kg (63.3%) | 80.5 % | 4    |
| Grain   | Strzegom Karmel 50          | 0.22 kg (3.4%) | 75 %   | 50   |
| Grain   | Weyermann Caramunich 3      | 0.23 kg (3.5%) | 76 %   | 150  |
| Grain   | Strzegom Czekoladowy ciemny | 0.23 kg (3.5%) | 68 %   | 1200 |
| Grain   | Bestmalz - Special X        | 0.28 kg (4.3%) | 75 %   | 400  |
| Grain   | Black (Patent) Malt         | 0.13 kg (2%)   | 55 %   | 985  |
| Grain   | Płatki pszeniczne           | 0.47 kg (7.3%) | 60 %   | 3    |
| Sugar   | Milk Sugar (Lactose)        | 0.7 kg (10.8%) | 76.1 % | 0    |
| Adjunct | Rice Hulls                  | 0.12 kg (1.9%) | 1 %    | 0    |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 30 g   | 60 min | 10 %       |

## Yeasts

| <b>Name</b> | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|-------------|-------------|-------------|---------------|-------------------|
| Horondial   | Ale         | Slant       | 160 ml        | Omega             |

### **Extras**

| <b>Type</b> | <b>Name</b>    | <b>Amount</b> | <b>Use for</b> | <b>Time</b> |
|-------------|----------------|---------------|----------------|-------------|
| Spice       | Laska wanilii  | 20 g          | Secondary      | 10 day(s)   |
| Spice       | Łuska kakaowca | 200 g         | Secondary      | 10 day(s)   |