

# Ciemniak

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **25**
- SRM **38**
- Style **Oatmeal Stout**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **16.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

## Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **15 min**

## Mash step by step

- Heat up **10.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **76C**
- Sparge using **9.1 liter(s)** of **76C** water or to achieve **16.1 liter(s)** of wort

## Fermentables

| Type  | Name                      | Amount         | Yield | EBC  |
|-------|---------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt      | 2 kg (57.1%)   | 80 %  | 5    |
| Grain | Strzegom pszenica prażona | 0.3 kg (8.6%)  | 70 %  | 1000 |
| Grain | Strzegom Pilznieński      | 0.5 kg (14.3%) | 80 %  | 4    |
| Grain | Jęczmień palony           | 0.2 kg (5.7%)  | 55 %  | 985  |
| Grain | Płatki owsiane            | 0.5 kg (14.3%) | 85 %  | 3    |

## Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | Cascade PL | 20 g   | 50 min | 5.2 %      |
| Boil                | Chinook    | 5 g    | 30 min | 13 %       |
| Aroma (end of boil) | Cascade PL | 10 g   | 1 min  | 5.2 %      |

## Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 700 ml | Safale     |