

# Stout piernikowy z wysłodzin risa

- Gravity **19.3 BLG**
- ABV **8.4 %**
- IBU **24**
- SRM **39.2**
- Style **Oatmeal Stout**

## Batch size

- Expected quantity of finished beer **32 liter(s)**
- Trub loss **5 %**
- Size with trub loss **33.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **43.5 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **37 liter(s)**
- Total mash volume **49.3 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **64 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **37 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **76C**
- Sparge using **18.8 liter(s)** of **76C** water or to achieve **43.5 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Weyermann - Pale Ale Malt   | 7.15 kg (58%)  | 85 %  | 7    |
| Grain | Karmelowy Jasny 30EBC       | 1 kg (8.1%)    | 75 %  | 30   |
| Grain | Strzegom Monachijski typ II | 0.55 kg (4.5%) | 79 %  | 22   |
| Grain | Oats, Flaked                | 1.8 kg (14.6%) | 80 %  | 2    |
| Grain | Strzegom Karmel 600         | 1 kg (8.1%)    | 68 %  | 601  |
| Grain | Weyermann - Carafa III      | 0.55 kg (4.5%) | 70 %  | 1024 |
| Grain | Carafa                      | 0.28 kg (2.3%) | 70 %  | 664  |

## Hops

| Use for | Name      | Amount | Time   | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil    | Chinook   | 57 g   | 60 min | 8.5 %      |
| Boil    | Hallertau | 40 g   | 0 min  | 4.4 %      |

## Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 110 ml | Fermentis  |

### Extras

| Type  | Name                           | Amount | Use for | Time   |
|-------|--------------------------------|--------|---------|--------|
| Spice | Przyprawa korzenna do piernika | 54 g   | Boil    | 15 min |
| Spice | Cynamon                        | 10 g   | Boil    | 15 min |
| Spice | Gozdziki                       | 5 g    | Boil    | 15 min |
| Spice | Zest z 4 pomaranczy            | 10 g   | Boil    | 15 min |