

# Stout

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **32**
- SRM **31.2**
- Style **Other Smoked Beer**

## 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 **4 liter(s) / kg**
- Mash size **17.6 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **17.6 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                           | Amount         | Yield | EBC  |
|-------|--------------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt           | 2.5 kg (56.8%) | 80 %  | 5    |
| Grain | Jęczmień palony                | 0.35 kg (8%)   | 55 %  | 985  |
| Grain | Strzegom<br>Czekoladowy ciemny | 0.2 kg (4.5%)  | 68 %  | 1200 |
| Grain | Wędzony bukiem<br>Viking Malt  | 0.5 kg (11.4%) | 82 %  | 10   |
| Grain | Monachijski                    | 0.5 kg (11.4%) | 80 %  | 16   |
| Grain | Płatki owsiane                 | 0.35 kg (8%)   | 85 %  | 3    |

## Hops

| Use for | Name      | Amount | Time   | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil    | Tradition | 50 g   | 60 min | 5.5 %      |

## Yeasts

| Name                    | Type | Form  | Amount | Laboratory       |
|-------------------------|------|-------|--------|------------------|
| FM52 Amerykański<br>Sen | Ale  | Slant | 100 ml | Fermentum Mobile |