

# Stout

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **50**
- SRM **23.7**
- Style **Dry 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 **60 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **22.4 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **22.4 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **8.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt | 4.5 kg (80.4%) | 82 %  | 4   |
| Grain | Caraaroma           | 0.3 kg (5.4%)  | 78 %  | 400 |
| Grain | Carafa              | 0.4 kg (7.1%)  | 70 %  | 664 |
| Grain | Płatki owsiane      | 0.4 kg (7.1%)  | 85 %  | 3   |

## Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Marynka           | 40 g   | 50 min | 10 %       |
| Boil    | Lublin (Lubelski) | 40 g   | 10 min | 4 %        |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 21 g   | Safale     |