

# Stout Trooper

- Gravity **14.7 BLG**
- ABV ---
- IBU **32**
- SRM **54.5**
- Style **Oatmeal Stout**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **3 %**
- Size with trub loss **11.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **18 %/h**
- Boil size **15 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.2 liter(s)**
- Total mash volume **14.4 liter(s)**

## Steps

- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **11.2 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **1 min** at **78C**
- Sparge using **7 liter(s)** of **76C** water or to achieve **15 liter(s)** of wort

## Fermentables

| Type  | Name                     | Amount         | Yield | EBC  |
|-------|--------------------------|----------------|-------|------|
| Grain | Pale Ale (Malteurop)     | 1 kg (31.2%)   | 81 %  | 7    |
| Grain | Słód Owsiany             | 1 kg (31.2%)   | 80 %  | 7    |
| Grain | Płatki owsiane           | 0.4 kg (12.5%) | 85 %  | 3    |
| Grain | Abbey (Castle)           | 0.2 kg (6.2%)  | 80 %  | 45   |
| Grain | Czekoladowy 900 (Castle) | 0.2 kg (6.2%)  | 65 %  | 900  |
| Grain | Brown (Fawcett)          | 0.2 kg (6.2%)  | 72 %  | 190  |
| Grain | Kawowy                   | 0.1 kg (3.1%)  | 72 %  | 500  |
| Grain | Jęczmień palony (Castle) | 0.1 kg (3.1%)  | 55 %  | 1300 |

## Hops

| Use for             | Name  | Amount | Time   | Alpha acid |
|---------------------|-------|--------|--------|------------|
| Boil                | lunga | 15 g   | 60 min | 8.8 %      |
| Aroma (end of boil) | Saaz  | 50 g   | 5 min  | 2.3 %      |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| Us-05 | Ale  | Dry  | 11 g   | Fermentis  |

## Extras

| Type  | Name                   | Amount | Use for   | Time     |
|-------|------------------------|--------|-----------|----------|
| Spice | Mięta Pieprzowa otarta | 30 g   | Secondary | 3 day(s) |