

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) |