

Stout 1

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **28**
- SRM **31.9**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.9 liter(s)**
- Total mash volume **23 liter(s)**

Steps

- Temp **68 C**, Time **50 min**
- Temp **72 C**, Time **5 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **17.9 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **5 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------------|----------------|-------|------|
| Grain | Briess - Pale Ale Malt | 3 kg (58.8%) | 80 % | 7 |
| Grain | Monachijski | 1 kg (19.6%) | 80 % | 16 |
| Grain | Płatki owsiane | 0.5 kg (9.8%) | 60 % | 3 |
| Grain | Carafa III | 0.2 kg (3.9%) | 70 % | 1034 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.25 kg (4.9%) | 73 % | 1001 |
| Grain | Jęczmień palony | 0.15 kg (2.9%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Marynka | 25 g | 60 min | 10 % |
| Boil | Lublin (Lubelski) | 20 g | 0 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Fermentis |