

stout

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **35**
- SRM **28**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **26.9 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.3 liter(s)**
- Total mash volume **20.9 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **75 C**, Time **1 min**

Mash step by step

- Heat up **16.3 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **1 min** at **75C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|--------|------|
| Grain | BESTMALZ - Bestt Pale Ale | 4 kg (82.5%) | 80.5 % | 6 |
| Grain | Palony jęczmień Weyermann | 0.43 kg (8.9%) | 55 % | 1000 |
| Grain | castle malting coffe | 0.22 kg (4.5%) | 78 % | 500 |
| Sugar | cukier | 0.2 kg (4.1%) | 100 % | 1 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|-------|--------|--------|------------|
| First Wort | lunga | 20 g | 60 min | 12.4 % |
| Boil | lunga | 15 g | 10 min | 12.4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------|------|-------|--------|------------|
| hot head | Ale | Slant | 200 ml | po 102 |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------|--------|---------|--------|
| Fining | whirlfloc t | 0.5 g | Boil | 10 min |