

Dry stout

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **37**
- SRM **24.6**
- Style **Foreign Extra 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **18.3 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilznieński	5 kg (82%)	81 %	4
Grain	Caraaroma	0.3 kg (4.9%)	78 %	400
Grain	Jęczmień palony	0.2 kg (3.3%)	55 %	985
Grain	Viking Czekoladowy ciemny	0.1 kg (1.6%)	67 %	900
Grain	płatki jęczmienne	0.5 kg (8.2%)	60 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lunga	35 g	55 min	8.5 %
Boil	Fuggles	45 g	10 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	150 ml	Fermentis