Dry stout

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **32**
- SRM **25.1**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.5 liter(s)**
- Total mash volume **24.6 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg *(56.9%)*	80 %	5
Grain	Pilzneński	1.5 kg *(24.4%)*	81 %	4
Grain	Strzegom Karmel 300	0.3 kg *(4.9%)*	70 %	299
Grain	Strzegom Barwiący	0.15 kg *(2.4%)*	68 %	1300
Grain	Jęczmień palony	0.2 kg *(3.3%)*	55 %	985
Grain	Słód owsiany Fawcett	0.5 kg *(8.1%)*	61 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	8 %
Boil	Iunga	20 g	60 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Kveiki espe	Ale	Dry	2 g	Kveik