

Stout

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **30**
- SRM **33.9**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **18.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **10 liter(s)**
- Total mash volume **13.7 liter(s)**

Steps

- Temp **69 C**, Time **70 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **10 liter(s)** of strike water to **78.1C**
- Add grains
- Keep mash **70 min** at **69C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **18.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Mep©Ale	2.8 kg (75.3%)	79 %	7
Grain	Słód Żytni	0.4 kg (10.8%)	81 %	9
Grain	Słód Czekoladowy Jasny - 1kg - Viking Malt	0.1 kg (2.7%)	72 %	400
Grain	Słód Czekoladowy ciemny	0.1 kg (2.7%)	68 %	1200
Grain	Słód Carafa® Special typ III	0.15 kg (4%)	65 %	1400
Grain	Słód Karmelowy 600 - 1kg - Viking Malt	0.1 kg (2.7%)	70 %	600
Grain	Słód Żytni palony Anglia	0.033 kg (0.9%)	65 %	650
Grain	Pale Chocolate	0.033 kg (0.9%)	69 %	600

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Minstrel® (UK)	60 g	30 min	4.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
fermentis US-05	Ale	Slant	250 ml	fermentis