

American stout

- Gravity **19.8 BLG**
- ABV **8.7 %**
- IBU **42**
- SRM **79.9**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **27.3 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **19.5 liter(s)** of strike water to **75.2C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **2 min** at **78C**
- Sparge using **11.1 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (38.5%)	80 %	5
Grain	Pilznieński	2 kg (25.6%)	81 %	4
Grain	Strzegom Czekoladowy ciemny	1 kg (12.8%)	68 %	1200
Grain	Chit Malt	0.5 kg (6.4%)	50 %	2
Grain	Pszeniczny	0.5 kg (6.4%)	81 %	6
Grain	Extra black	0.4 kg (5.1%)	65 %	1400
Grain	Jęczmień palony	0.4 kg (5.1%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Amarillo	20 g	20 min	9.5 %
Boil	Amarillo	30 g	60 min	9.5 %
Dry Hop	Lemon drop	40 g	4 day(s)	4.6 %
Whirlpool	Cascade	20 g	25 min	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Mangrove Jack's M42 New World Strong Ale	Ale	Dry	20 g	Mangrove Jack's
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