

## Forest stout

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- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **54**
- SRM **40.7**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

### Steps

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

### Mash step by step

- Heat up **12 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **6.3 liter(s)** of **76C** water or to achieve **14.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (87.5%)	80 %	5
Grain	Jęczmień palony	0.5 kg (12.5%)	55 %	985

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	11 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M12 Voss Kveik	Ale	Slant	100 ml	Mangrove Jack's

### Extras

Type	Name	Amount	Use for	Time
Flavor	pędy świerku	250 g	Boil	5 min
Flavor	pędy świerku	250 g	Secondary	3 day(s)
na CC 1°C przez 3 dni				