

## #30 Forest Stout

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **109**
- SRM **36.3**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **3 %**
- Size with trub loss **20.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **24.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **16.4 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **12.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **0 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **24.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (73.2%)	80 %	5
Grain	Strzegom Czekoladowy ciemny	0.2 kg (4.9%)	68 %	1200
Grain	Carafa II	0.2 kg (4.9%)	70 %	812
Grain	Jęczmień palony	0.3 kg (7.3%)	55 %	985
Grain	Płatki owsiane	0.4 kg (9.8%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	20 g	60 min	13.2 %
Boil	Simcoe	10 g	30 min	13.2 %
Boil	Simcoe	10 g	10 min	13.2 %
Boil	Idaho	10 g	60 min	12.3 %
Boil	Idaho	20 g	30 min	12.3 %
Boil	Idaho	10 g	10 min	12.3 %
Boil	Chinook	20 g	10 min	13 %
Dry Hop	Simcoe	10 g	3 day(s)	13.2 %
Dry Hop	Idaho	10 g	3 day(s)	12.3 %

Dry Hop	Chinook	80 g	3 day(s)	13 %
---------	---------	------	----------	------

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	150 ml	Safale

### Extras

Type	Name	Amount	Use for	Time
Flavor	Owoce jałowca	20 g	Boil	15 min