

FOREST STOUT

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **20**
- SRM **31.3**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8.4 liter(s)**
- Total mash volume **10.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **8.4 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **76C**
- Sparge using **6.7 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	2 kg (83.3%)	81 %	6
Grain	Carafa II Special	0.1 kg (4.2%)	70 %	812
Grain	Jęczmień palony	0.1 kg (4.2%)	55 %	985
Grain	Fawcett - Pszeniczny Czekoladowy	0.1 kg (4.2%)	73 %	1001
Grain	Simpsons - Crystal Dark	0.1 kg (4.2%)	74 %	158

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	25 g	20 min	4.5 %
Boil	Fuggles	25 g	5 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand - LaBrew Verdant IPA	Ale	Dry	11 g	Lallemand

Extras

Type	Name	Amount	Use for	Time
Flavor	Pędy świerku	135 g	Boil	5 min
Water Agent	Chlorek wapnia	8 g	Mash	60 min
Fining	Whirlflock	1 g	Boil	10 min