

Stout v4_tonka #78

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **49**
- SRM **34.4**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **20.4 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **90 min**
- Evaporation rate **12 %/h**
- Boil size **25.5 liter(s)**

Mash information

- Mash efficiency **81.2 %**
- Liquor-to-grist ratio **3.39 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25.9 liter(s)**

Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **75 C**, Time **7 min**

Mash step by step

- Heat up **20 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **7 min** at **75C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking - pilzneński	1 kg (16.9%)	80 %	4
Grain	Mep©Ale	3 kg (50.8%)	82.1 %	5.5
Grain	Viking - monachijski I	1 kg (16.9%)	79 %	16
Grain	Viking - karmelowy czerwony	0.4 kg (6.8%)	75 %	50
Grain	Fawcett - czekoladowy pszeniczny	0.2 kg (3.4%)	72.7 %	1000
Grain	Chateau - black	0.3 kg (5.1%)	73 %	1350

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	20 g	60 min	14.7 %
Aroma (end of boil)	Chinook PL	20 g	30 min	8.6 %
Aroma (end of boil)	Perle szyszka mokra	30 g	10 min	6.5 %
120 gr mokrej szyszki (mrożonej), ekwiwalent 30 gr suchej				

Yeasts

Name	Type	Form	Amount	Laboratory
FM54 Gorączka kalifornijska	Ale	Slant	170 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	1.5 g	Mash	---
Water Agent	węglan wapnia	7 g	Mash	---
Water Agent	sól epsom	1 g	Mash	---
Water Agent	kwask mlekowy [ml]	3.03 g	Mash	---
Water Agent	chlerek wapnia [ml]	0 g	Mash	---
Fining	mech irlandzki	3 g	Boil	10 min
Flavor	bób tonka	5 g	Secondary	20 day(s)
Flavor	cukier z wanilią	24 g	Bottling	---

Notes

- bób tonka pokruszony i macerowany - dodany do 10 L piwa, pozostałe 10/11L - bez dodatków
Oct 16, 2018, 5:14 PM