

# Stout\_v11 #115

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **51**
- SRM **33.3**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **17.2 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.1 liter(s)**
- Boil time **80 min**
- Evaporation rate **18 %/h**
- Boil size **22.7 liter(s)**

## Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **3.03 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.9 liter(s)**

## Steps

- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **7 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **72.4C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **22.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Mep©Ale	2.6 kg (52.6%)	82.1 %	5.5
Grain	Viking - monachijski I	1.7 kg (34.4%)	79 %	16
Grain	Viking - karmelowy 300	0.25 kg (5.1%)	73 %	300
Grain	Weyermann - czekoladowy pszeniczny	0.2 kg (4%)	72.7 %	1050
Grain	Viking - palony jęczmień	0.08 kg (1.6%)	73 %	1000
Grain	Wyerermann - Carafa II special	0.11 kg (2.2%)	65 %	1150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	35 g	60 min	8 %
Aroma (end of boil)	Sybilla szyszka mokra	30 g	10 min	6 %
120 gr mokrej szyszki (mrożonej), ekwiwalent 30 gr suchej				
Aroma (end of boil)	Cascade US	35.93 g	10 min	7.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
WLP090 - San Diego Super Yeast	Ale	Slant	150 ml	White Labs
gęstwa 23-dniowa				

## Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	1.5 g	Mash	---
Water Agent	węglan wapnia	5.5 g	Mash	---
Water Agent	sól epsom	1 g	Mash	---
Water Agent	kwask mlekowy [ml]	3.11 g	Mash	---
Water Agent	chlorek wapnia [ml]	0 g	Mash	---
Fining	mech irlandzki	3 g	Boil	10 min
Water Agent	kwask askorbinowy	0 g	Bottling	---