

# Pastry Stout JO

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **31**
- SRM **37.7**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **13 liter(s)**

## Steps

- Temp **62 C**, Time **20 min**
- Temp **68 C**, Time **20 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **9.8 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **20 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **6.7 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	0.5 kg (15.4%)	80 %	5
Grain	Simpsons - Maris Otter	1 kg (30.8%)	81 %	6
Grain	Caraaroma	0.4 kg (12.3%)	78 %	400
Grain	Weyermann - Carafa I	0.1 kg (3.1%)	1 %	690
Grain	Strzegom Czekoladowy ciemny	0.15 kg (4.6%)	1 %	1200
Grain	Płatki owsiane	0.6 kg (18.5%)	85 %	3
Grain	płatki żytnie	0.5 kg (15.4%)	80 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	pilgrim	10 g	60 min	10.3 %
Aroma (end of boil)	pilgrim	15 g	10 min	10.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us 04	Ale	Dry	6 g	---

### Extras

Type	Name	Amount	Use for	Time
Other	laktoza	200 g	Boil	15 min
Water Agent	chlorek wapnia 33%	6 g	Mash	60 min
Flavor	płatki high mocca	25 g	Secondary	10 day(s)
Flavor	tonka i vanilia	7 g	Secondary	1 day(s)