

# Better than Bitter

- Gravity **9.5 BLG**
- ABV **3.7 %**
- IBU **34**
- SRM **9.3**
- Style **Standard/Ordinary Bitter**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **22.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (66.7%)	80 %	5
Grain	Crystal II 200	0.5 kg (11.1%)	71 %	200
Grain	Strzegom Wiedeński	1 kg (22.2%)	79 %	10

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Summit	18 g	60 min	17 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	13 g	5 min	15.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Fining	Irish moss	10 g	Boil	15 min
Flavor	Earl Grey hebrata	20 g	Boil	8 min

## Notes

- Herbata dodana będzie po wyłączeniu palnika, na ~10 minut w trakcie chłodzenia (chłodnica zanurzeniowa)  
*Jan 27, 2018, 10:42 AM*