

# Bitter 36 L

- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **38**
- SRM **3.9**
- Style **Standard/Ordinary Bitter**

## Batch size

- Expected quantity of finished beer **36 liter(s)**
- Trub loss **5 %**
- Size with trub loss **37.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **45.5 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

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

## Mash step by step

- Heat up **18 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **33.5 liter(s)** of **76C** water or to achieve **45.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (33.3%)	80 %	5
Grain	Strzegom Wiedeński	2 kg (33.3%)	79 %	10
Grain	Karamel Pils Steinbach	1 kg (16.7%)	79 %	6
Grain	Żytni	1 kg (16.7%)	85 %	8

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	40 g	60 min	12 %
Boil	Cascade	30 g	10 min	6 %
Boil	Cascade	45 g	0 min	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	22 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Fining	wirflock	1 g	Boil	5 min