

# Porter ustroński 7,2hl

- Gravity **23.6 BLG**
- ABV **10.8 %**
- IBU **10**
- SRM **31.1**
- Style **Baltic Porter**

## Batch size

- Expected quantity of finished beer **720 liter(s)**
- Trub loss **5 %**
- Size with trub loss **756 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **910.8 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **937.2 liter(s)**
- Total mash volume **1249.6 liter(s)**

## Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **937.2 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **286 liter(s)** of **76C** water or to achieve **910.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	200 kg (64%)	80 %	5
Grain	Viking Wędzony bukiem	75 kg (24%)	82 %	10
Grain	Weyermann - Carared	8.3 kg (2.7%)	75 %	45
Grain	Caraaroma	8.3 kg (2.7%)	78 %	400
Grain	Strzegom Czekoladowy jasny	8.3 kg (2.7%)	68 %	400
Grain	Carafa III	12.5 kg (4%)	70 %	1034

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	300 g	60 min	13.5 %
Boil	Tettnang	400 g	20 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-189	Lager	Dry	500 g	Fermentis