

# Robust Porter#1

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- Gravity **15.2 BLG**
- ABV ---
- IBU **41**
- SRM **31.1**
- Style **Robust Porter**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **28.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **65 C**, Time **90 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **90 min** at **65C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **28.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (83.3%)	79 %	6
Grain	Strzegom Karmel 150	0.5 kg (8.3%)	75 %	150
Grain	Strzegom Czekoladowy 400	0.3 kg (5%)	68 %	400
Grain	Weyermann - Carafa I	0.2 kg (3.3%)	70 %	690

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Kent Goldings	30 g	60 min	5.5 %
Boil	Fuggles	30 g	45 min	4.5 %
Boil	Fuggles	30 g	30 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale