

# Ris

- Gravity **28.7 BLG**
- ABV **14 %**
- IBU **81**
- SRM **52**
- Style **Russian Imperial Stout**

## 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **42 liter(s)**
- Total mash volume **56 liter(s)**

## Steps

- Temp **69 C**, Time **30 min**
- Temp **73 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **42 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **30 min** at **69C**
- Keep mash **60 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **3.7 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	10 kg (66.7%)	80 %	5
Grain	Strzegom Czekoladowy jasny	2 kg (13.3%)	68 %	400
Grain	Karmelowy Jasny 30EBC	2 kg (13.3%)	75 %	30
Liquid Extract	WES ekstrakt słodowy ciemny	1 kg (6.7%)	80 %	700

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	50 g	60 min	13.5 %
Boil	Chinook	70 g	60 min	13 %
Boil	Chinook	20 g	25 min	13 %

## Extras

Type	Name	Amount	Use for	Time
Flavor	Oak Chips	227.28 g	Secondary	30 day(s)