

# RIS

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **90**
- SRM **28**

## Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **38 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **30 liter(s)**
- Total mash volume **40 liter(s)**

## Steps

- Temp **50 C**, Time **15 min**
- Temp **67 C**, Time **60 min**
- Temp **79 C**, Time **5 min**

## Mash step by step

- Heat up **30 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **15 min** at **50C**
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **79C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **38 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Vienna Malt	3.5 kg (35%)	79 %	7
Grain	Viking Munich Malt	3.5 kg (35%)	78 %	18
Grain	Fawcett - Pale Chocolate	1 kg (10%)	71 %	600
Grain	Viking Caramel 30 Malt	1 kg (10%)	75 %	30
Grain	Strzegom Karmel 150	0.4 kg (4%)	70 %	150
Grain	Płatki pszeniczne	0.2 kg (2%)	60 %	3
Grain	Płatki pszeniczne	0.2 kg (2%)	60 %	3
Grain	Płatki owsiane	0.2 kg (2%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	120 g	60 min	10 %
Aroma (end of boil)	Lublin (Lubelski)	90 g	10 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-04	Ale	Dry	34.5 g	Fermentis
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