

## Smoothness

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **41**
- SRM **3.8**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.6 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.7 liter(s)**
- Total mash volume **11.6 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**

### Mash step by step

- Heat up **8.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **9.8 liter(s)** of **76C** water or to achieve **15.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.3 kg (79.3%)	80 %	5
Grain	Płatki owsiane	0.3 kg (10.3%)	85 %	3
Grain	Płatki pszeniczne	0.3 kg (10.3%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Rakau (NZ)	5 g	60 min	10.5 %
Boil	Rakau (NZ)	5 g	30 min	10.5 %
Boil	Mosaic	10 g	30 min	10 %
Boil	Mosaic	10 g	10 min	10 %
Boil	Rakau (NZ)	5 g	10 min	10.5 %
Aroma (end of boil)	Rakau (NZ)	15 g	0 min	10.5 %
Aroma (end of boil)	Mosaic	15 g	0 min	10 %
Dry Hop	Rakau (NZ)	30 g	---	9.5 %
Dry Hop	Mosaic	30 g	---	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Slant	20 ml	Fermentis