

# R i S 1

- Gravity **25.7 BLG**
- ABV **12.1 %**
- IBU **39**
- SRM **47.1**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **23.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **21.5 liter(s)**
- Total mash volume **30.1 liter(s)**

## Steps

- Temp **67 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **21.5 liter(s)** of strike water to **76.4C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **10.9 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5 kg (54.3%)	85 %	7
Grain	Strzegom Karmel 30	1 kg (10.9%)	75 %	30
Grain	Strzegom Czekoladowy jasny	0.4 kg (4.3%)	68 %	400
Grain	Extra black	0.4 kg (4.3%)	65 %	1400
Grain	Płatki owsiane	1 kg (10.9%)	85 %	3
Grain	Płatki orkiszowe	0.4 kg (4.3%)	80 %	4
Grain	Rye, Flaked	0.4 kg (4.3%)	78.3 %	4
Sugar	Candi Sugar, Dark	0.6 kg (6.5%)	78.3 %	350
Adjunct	Pszenica niesłodowana	0 kg	75 %	3
Grain	Strzegom Monachijski typ I	0 kg	79 %	16
Grain	Jęczmień palony	0 kg	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	sabro	25 g	60 min	15.8 %
Boil	sabro	25 g	10 min	15.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	23 g	Fermentis