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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **23**
- SRM **4.1**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **13.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (41.3%)	80 %	4
Grain	Briess - Pale Ale Malt	2 kg (41.3%)	80 %	7
Grain	carmel pale	0.5 kg (10.3%)	75 %	8
Adjunct	płatki jęczmienne	0.2 kg (4.1%)	--- %	---
Adjunct	Płatki owsiane	0.14 kg (2.9%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	20 g	20 min	12 %
Boil	Amarillo	20 g	10 min	9.5 %
Aroma (end of boil)	Citra	10 g	0 min	12 %
Dry Hop	Centennial	20 g	7 day(s)	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
us 05	Ale	Dry	11 g	---

Extras

Type	Name	Amount	Use for	Time
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Spice	skórka pomarańczy	30 g	Boil	10 min
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