CDA

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **39**
- SRM **39.5**

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 **3.5 liter(s) / kg**
- Mash size **13.1 liter(s)**
- Total mash volume **16.9 liter(s)**

Steps

- Temp **68 C**, Time **70 min**

Mash step by step

- Heat up **13.1 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **70 min** at **68C**
- Sparge using **6.3 liter(s)** of **76C** water or to achieve **15.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3 kg *(80%)*	80 %	7
Grain	Weyermann - Dehusked Carafa III	0.3 kg *(8%)*	70 %	1500
Grain	Special X	0.15 kg *(4%)*	72 %	400
Grain	Pszeniczny	0.3 kg *(8%)*	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	13.1 g	60 min	10.5 %
Boil	Cascade	13.1 g	45 min	6 %
Boil	Willamette	13.1 g	15 min	5 %
Boil	Cascade	13.1 g	0 min	6 %
Dry Hop	Cascade	26.19 g	5 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	72 ml	Fermentum Mobile