

Ale

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **28**
- SRM **13.1**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **26.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **19.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **0 min** at **76C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	2.5 kg (38.2%)	80 %	7
Grain	Pilzneński	1.5 kg (22.9%)	81 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (7.6%)	79 %	16
Grain	Strzegom Pszeniczny	1 kg (15.3%)	81 %	6
Grain	Karmelowy Czerwony	0.6 kg (9.2%)	75 %	59
Grain	Cara Gold	0.25 kg (3.8%)	75 %	120
Grain	Caraaroma	0.2 kg (3.1%)	78 %	400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Boil	Lublin (Lubelski)	15 g	10 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	15 g	0 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis