

Bóbr

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **23**
- SRM **8.3**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **53 C**, Time **20 min**
- Temp **64 C**, Time **30 min**
- Temp **68 C**, Time **20 min**
- Temp **72 C**, Time **1 min**

Mash step by step

- Heat up **19.9 liter(s)** of strike water to **57.7C**
- Add grains
- Keep mash **20 min** at **53C**
- Keep mash **30 min** at **64C**
- Keep mash **20 min** at **68C**
- Keep mash **1 min** at **72C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4.2 kg (73.7%)	84 %	4
Grain	Strzegom Monachijski typ II	1 kg (17.5%)	82 %	22
Grain	Strzegom Karmel 30	0.4 kg (7%)	77 %	30
Grain	Strzegom Czekoladowy jasny	0.1 kg (1.8%)	70 %	400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	8 g	60 min	10 %
Boil	Marynka	5 g	50 min	10 %
Boil	Citra	20 g	10 min	12 %
Boil	Lublin (Lubelski)	25 g	5 min	4 %
Boil	Citra	5 g	5 min	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-33	Ale	Dry	11.5 g	Fermentis
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