

polska

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **33**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **14.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **76C**
- Sparge using **19.5 liter(s)** of **76C** water or to achieve **29.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (83.2%)	80 %	4
Grain	Strzegom Wiedeński	0.5 kg (10.4%)	79 %	10
Grain	Strzegom Karmel 30	0.2 kg (4.2%)	75 %	30
Grain	Karmelowy 50	0.11 kg (2.3%)	75 %	59

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	6 g	60 min	11 %
Boil	Marynka	20 g	60 min	7.2 %
Boil	Lublin (Lubelski)	20 g	20 min	2.6 %
Boil	Sybilla	20 g	10 min	6.1 %
Boil	Sybilla	15 g	5 min	6.1 %
Boil	Lublin (Lubelski)	15 g	5 min	2.6 %
Boil	Sybilla	15 g	0 min	6.1 %
Boil	Lublin (Lubelski)	15 g	0 min	2.6 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-04	Ale	Dry	10 g	Safale
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