

polska

- Gravity **10.2 BLG**
- ABV ---
- IBU **32**
- SRM **4.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.6 liter(s)**
- Total mash volume **19.4 liter(s)**

Steps

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

Mash step by step

- Heat up **14.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **76C**
- Sparge using **22 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (82.3%)	80 %	4
Grain	Strzegom Wiedeński	0.5 kg (10.3%)	79 %	10
Grain	Strzegom Karmel 30	0.25 kg (5.1%)	75 %	30
Grain	Karmelowy 50	0.11 kg (2.3%)	75 %	59

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	7.2 %
Boil	Lublin (Lubelski)	20 g	20 min	3.7 %
Boil	Sybilla	20 g	10 min	4.5 %
Boil	Sybilla	15 g	5 min	4.5 %
Boil	Lublin (Lubelski)	15 g	5 min	3.7 %
Boil	Sybilla	15 g	0 min	4.5 %
Boil	Lublin (Lubelski)	15 g	0 min	3.7 %

Yeasts

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