

Resztkowe

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **55**
- SRM **18.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **18 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **21.4 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **65 C**, Time **60 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **21.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Vienna Malt	1 kg (25%)	81 %	8
Grain	Caramel/Crystal Malt - 120L	1 kg (25%)	72 %	150
Grain	Płatki owsiane	1 kg (25%)	85 %	3
Grain	Strzegom Monachijski typ II	0.5 kg (12.5%)	79 %	22
Grain	Słód Caramunich Typ II Weyermann	0.5 kg (12.5%)	73 %	120

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	30 g	30 min	14.2 %
Boil	Cascade	30 g	10 min	6.5 %
Boil	Cascade	30 g	0 min	6.5 %
Dry Hop	Citra	30 g	7 day(s)	14.2 %
Dry Hop	Cascade	30 g	7 day(s)	6.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale