

Włóczyki

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **36**
- SRM **9.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **21.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **65 C**, Time **45 min**
- Temp **79 C**, Time **0 min**

Mash step by step

- Heat up **13.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **0 min** at **79C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **21.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale Viking Malt	4 kg (88.9%)	79 %	6
Grain	Słód Caramunich Typ II Weyermann	0.5 kg (11.1%)	73 %	120

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Summit	10 g	60 min	14.1 %
Whirlpool	Summit	40 g	10 min	14.1 %
Whirlpool	Cascade	30 g	10 min	6.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP090 - San Diego Super Yeast	Ale	Liquid	40 ml	White Labs