

Wolny najmita

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **40**
- SRM **7.7**
- Style **Classic American Pilsner**

Batch size

- Expected quantity of finished beer **45 liter(s)**
- Trub loss **5 %**
- Size with trub loss **47.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **57 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **36 liter(s)**
- Total mash volume **48 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **75 C**, Time **5 min**

Mash step by step

- Heat up **36 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **75C**
- Sparge using **33 liter(s)** of **76C** water or to achieve **57 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	7 kg (58.3%)	80 %	16
Grain	Strzegom Wiedeński	5 kg (41.7%)	79 %	10

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	100 g	30 min	10 %
Boil	Perle	50 g	5 min	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	600 ml	Safale