

Tanio i dobrze

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **50**
- SRM **4.1**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **26.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **20.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (74.6%)	81 %	4
Grain	Płatki owsiane	0.6 kg (9%)	85 %	3
Grain	Płatki pszeniczne	0.6 kg (9%)	85 %	3
Grain	Weyermann - Carapils	0.5 kg (7.5%)	78 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	15 g	60 min	13.2 %
Boil	Cascade	20 g	5 min	6 %
Boil	Centennial	20 g	5 min	10.5 %
Whirlpool	Cascade	30 g	20 min	6 %
Whirlpool	Centennial	30 g	20 min	10.5 %
Whirlpool	Amarillo	50 g	20 min	9.5 %
Dry Hop	Amarillo	50 g	4 day(s)	9.5 %
Dry Hop	Cascade	50 g	4 day(s)	6 %
Dry Hop	Centennial	50 g	4 day(s)	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM54 Gorączka kalifornijska	Ale	Slant	200 ml	Fermentum Mobile