

DARMOWE

- Gravity **12.4 BLG**
- ABV ---
- IBU **36**
- SRM **7.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **5 %**
- Size with trub loss **36.8 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **45 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **29.9 liter(s)**
- Total mash volume **37.4 liter(s)**

Steps

- Temp **68 C**, Time **90 min**

Mash step by step

- Heat up **29.9 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **90 min** at **68C**
- Sparge using **22.6 liter(s)** of **76C** water or to achieve **45 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (66.9%)	79 %	6
Grain	Strzegom Monachijski typ II	2.17 kg (29%)	79 %	22
Grain	Bestmalz Carmel Pils	0.3 kg (4%)	75 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	16.96 g	60 min	11.2 %
Aroma (end of boil)	Citra	15 g	30 min	12.4 %
Aroma (end of boil)	Citra	15 g	20 min	12.4 %
Aroma (end of boil)	Citra	15 g	10 min	12.4 %
Whirlpool	Citra	20 g	0 min	12.4 %
Dry Hop	Citra	30 g	3 day(s)	12.4 %

Yeasts

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