

APA z końcówek

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **40**
- SRM **11.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **27.1 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **24.3 liter(s)**

Steps

- Temp **58 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **63.4C**
- Add grains
- Keep mash **10 min** at **58C**
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	1 kg (18.5%)	79 %	10
Grain	Strzegom Pale Ale	2 kg (37%)	79 %	6
Grain	Pszeniczny	0.47 kg (8.7%)	85 %	4
Grain	Strzegom Monachijski typ I	0.58 kg (10.7%)	79 %	16
Grain	Strzegom Wiedeński	0.45 kg (8.3%)	79 %	10
Grain	Strzegom pszenica prażona	0.1 kg (1.9%)	70 %	1000
Grain	Strzegom Pale Ale	0.8 kg (14.8%)	79 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %
Aroma (end of boil)	Enigma (AUS)	10 g	15 min	17.2 %
Aroma (end of boil)	Enigma (AUS)	40 g	3 min	17.2 %
Dry Hop	Enigma (AUS)	50 g	7 day(s)	17.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	5 g	Boil	10 min