

APA SINGLE HOP - CASCADE

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **46**
- SRM **6.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **7 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **7 min** at **78C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.25 kg (59.1%)	85 %	6.5
Grain	Weyermann pszeniczny jasny	0.75 kg (13.6%)	80 %	4
Grain	Carahell	0.25 kg (4.5%)	77 %	26
Grain	Strzegom Monachijski typ II	1.25 kg (22.7%)	79 %	22

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	20 g	60 min	8.1 %
Boil	Cascade	25 g	60 min	4.5 %
Boil	Cascade	25 g	30 min	4.5 %
Boil	Cascade	15 g	20 min	8.1 %
Boil	Cascade	15 g	10 min	8.1 %
Dry Hop	Cascade	50 g	5 day(s)	8.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips piwowarski	10 g	Mash	70 min