

Single Hop - Cascade

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **42**
- SRM **6.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **38.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **20.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **25 liter(s)** of **76C** water or to achieve **38.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale - Weyermann	5 kg (74.1%)	85 %	7
Grain	Monachijski - Weyermann	1 kg (14.8%)	80 %	15
Grain	Pszeniczny - Weyermann	0.5 kg (7.4%)	85 %	4
Grain	Karmelowy 150 - Strzegom	0.25 kg (3.7%)	75 %	120

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	50 g	60 min	7.1 %
Boil	Cascade	25 g	30 min	7.1 %
Boil	Cascade	15 g	20 min	7.1 %
Boil	Cascade	10 g	10 min	7.1 %
Dry Hop	Cascade	100 g	5 day(s)	7.1 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips piwowarski	15 g	Mash	70 min