

APA

- Gravity **12.9 BLG**
- ABV ---
- IBU **18**
- SRM **10.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 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 **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **2 min**

Mash step by step

- Heat up **16.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **2 min** at **72C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (92.6%)	80 %	5
Grain	Pszeniczny	0.2 kg (3.7%)	85 %	4
Grain	Strzegom Karmel 300	0.2 kg (3.7%)	70 %	299

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Green Bullet	10 g	60 min	11 %
Boil	Summer	10 g	20 min	6.4 %
Boil	Summer	10 g	10 min	6.4 %
Aroma (end of boil)	Green Bullet	10 g	0 min	11 %
Aroma (end of boil)	Summer	10 g	0 min	6.4 %
Dry Hop	Summer	70 g	4 day(s)	6.4 %
Dry Hop	Green Bullet	30 g	4 day(s)	11 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	10 g	Fermentis