

APA

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **48**
- SRM **5.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

Steps

- Temp **60 C**, Time **60 min**
- Temp **77 C**, Time **0 min**

Mash step by step

- Heat up **16.8 liter(s)** of strike water to **66.7C**
- Add grains
- Keep mash **60 min** at **60C**
- Keep mash **0 min** at **77C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (89.3%)	80 %	5
Grain	Strzegom Monachijski typ I	0.5 kg (8.9%)	79 %	16
Grain	Strzegom Karmel 150	0.1 kg (1.8%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	45 min	15.5 %
Boil	Mosaic	10 g	15 min	10 %
Aroma (end of boil)	Equinox	15 g	0 min	13.1 %
Aroma (end of boil)	Amarillo	15 g	0 min	9.5 %
Dry Hop	Equinox	15 g	4 day(s)	13.1 %
Dry Hop	Amarillo	15 g	4 day(s)	9.5 %
Dry Hop	Mosaic	20 g	4 day(s)	10 %

Yeasts

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