

APA

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **48**
- SRM **3.8**
- 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 **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **74 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **13.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **74C**
- Keep mash **1 min** at **78C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (88.9%)	80 %	5
Grain	Strzegom Pszeniczny	0.5 kg (11.1%)	81 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	10 g	30 min	7 %
Boil	Vic Secret	20 g	15 min	17 %
Boil	Cascade	20 g	15 min	7 %
Whirlpool	Vic Secret	30 g	5 min	17 %
Whirlpool	Cascade	20 g	5 min	7 %
Whirlpool	Cascade	50 g	20 min	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM 52	Ale	Slant	150 ml	---