

APA

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **71**
- SRM **5.1**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 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 **66 C**, Time **60 min**
- Temp **79 C**, Time **10 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **79C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (90.9%)	80 %	5
Grain	Strzegom Karmel 30	0.5 kg (9.1%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	60 min	13.5 %
Boil	Citra	25 g	30 min	12 %
Boil	Cascade PL	25 g	30 min	5.2 %
Aroma (end of boil)	Citra	25 g	1 min	12 %
Boil	hallertauer taurus	50 g	1 min	14 %
Dry Hop	Magnum	25 g	4 day(s)	13.5 %
Dry Hop	Citra	50 g	4 day(s)	12 %
Dry Hop	Cascade PL	25 g	4 day(s)	5.2 %
Dry Hop	Centennial	50 g	4 day(s)	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	12.5 g	---