

#1 APA

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **38**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **10.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8.3 liter(s)**
- Total mash volume **10.7 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.75 kg (73.7%)	80 %	5
Grain	Strzegom Wiedeński	0.5 kg (21.1%)	79 %	10
Grain	Karmelowy Jasny 30EBC	0.125 kg (5.3%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	7.5 g	60 min	15.5 %
Aroma (end of boil)	Cascade	16 g	20 min	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale