

## 40' APA

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **53**
- SRM **7.8**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **24.4 liter(s)**
- Total mash volume **30.5 liter(s)**

### Steps

- Temp **62 C**, Time **90 min**
- Temp **78 C**, Time **2 min**

### Mash step by step

- Heat up **24.4 liter(s)** of strike water to **67.3C**
- Add grains
- Keep mash **90 min** at **62C**
- Keep mash **2 min** at **78C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (82%)	80 %	5
Grain	Strzegom Karmel 600	0.1 kg (1.6%)	68 %	601
Grain	Pszeniczny	1 kg (16.4%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zula	30 g	60 min	11.1 %
Whirlpool	Sabro	15 g	60 min	14.9 %
Whirlpool	Citra	15 g	60 min	12.9 %
Whirlpool	Amarillo	15 g	60 min	8.5 %
Dry Hop	Citra	35 g	5 day(s)	12.9 %
Dry Hop	Sabro	35 g	5 day(s)	14.9 %
Dry Hop	Amarillo	35 g	5 day(s)	8.5 %
Dry Hop	Citra	50 g	3 day(s)	12.9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc T	2.5 g	Boil	10 min