

APA #12

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **36**
- SRM **7.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **50.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.4 liter(s)**
- Total mash volume **31.2 liter(s)**

Steps

- Temp **55 C**, Time **20 min**
- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **23.4 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **20 min** at **55C**
- Keep mash **40 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **35 liter(s)** of **76C** water or to achieve **50.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (64.1%)	100 %	5
Grain	Strzegom Monachijski typ I	1 kg (12.8%)	79 %	16
Grain	Strzegom Pilzneński	1 kg (12.8%)	80 %	4
Grain	Caraaroma	0.1 kg (1.3%)	78 %	400
Grain	Caraamber	0.2 kg (2.6%)	75 %	59
Grain	Carawheat (GR)	0.5 kg (6.4%)	68 %	79

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	30 g	60 min	13 %
Boil	Talus	25 g	30 min	8 %
Boil	Talus	25 g	10 min	8 %
Whirlpool	Talus	50 g	0 min	8 %
Dry Hop	Zythos	120 g	7 day(s)	11 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Slant	500 ml	Fermentis

Extras

Type	Name	Amount	Use for	Time
Fining	Whirflock T	2.5 g	Boil	15 min