

Single Hop Columbus APA

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **70**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **45 liter(s)**
- Trub loss **5 %**
- Size with trub loss **47.3 liter(s)**
- Boil time **65 min**
- Evaporation rate **5 %/h**
- Boil size **51.2 liter(s)**

Mash information

- Mash efficiency **55 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **36 liter(s)**
- Total mash volume **48 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	12 kg (100%)	80 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	100 g	40 min	12.7 %
Boil	Columbus/Tomahawk/Zeus	30 g	10 min	12.7 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	70 g	0 min	12.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	23 g	Safale