

# Colorado APA

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **33**
- SRM **4.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **8 %**
- Size with trub loss **18.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **22.4 liter(s)**

## Mash information

- Mash efficiency **67 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **18.9 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**

## Mash step by step

- Heat up **14.7 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **11.9 liter(s)** of **76C** water or to achieve **22.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Colorado Pale Base	4 kg (95.2%)	87 %	5
Grain	Colorado Crystal 10L	0.2 kg (4.8%)	80 %	25

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	15 g	60 min	12.8 %
Boil	Chinook	10 g	10 min	12.8 %
Boil	Ahtanum	10 g	10 min	4 %
Aroma (end of boil)	Ahtanum	15 g	0 min	4 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	10 g	0 min	14 %
Aroma (end of boil)	Equinox	10 g	0 min	13.4 %
Dry Hop	Columbus/Tomahawk/Zeus	20 g	3 day(s)	14 %
Dry Hop	Equinox	20 g	3 day(s)	13.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis