

# Centennial APA

- Gravity **13.1 BLG**
- ABV ---
- IBU **55**
- SRM **13.6**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **10 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **22.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **12.6 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	3 kg (71.4%)	81 %	4
Grain	Caraaroma	0.2 kg (4.8%)	78 %	400
Grain	Strzegom Pale Ale	1 kg (23.8%)	79 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	14 g	60 min	10.5 %
Boil	Centennial	14 g	45 min	10.5 %
Boil	Centennial	12 g	30 min	10.5 %
Aroma (end of boil)	Centennial	12 g	15 min	10.5 %
Whirlpool	Centennial	12 g	0 min	10.5 %
Dry Hop	Centennial	12 g	5 day(s)	10.5 %

## Yeasts

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