

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 |