

APA

- Gravity **13.2 BLG**
- ABV ---
- IBU **29**
- SRM **9.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **63 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **19.9 liter(s)** of strike water to **69.2C**
- Add grains
- Keep mash **50 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Briess - Pale Ale Malt | 5 kg (87.7%) | 80 % | 7 |
| Grain | Weyermann pszeniczny jasny | 0.4 kg (7%) | 80 % | 6 |
| Grain | Strzegom Karmel 150 | 0.3 kg (5.3%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|------------|--------|----------|------------|
| Boil | Mosaic | 20 g | 60 min | 10 % |
| Boil | Centennial | 20 g | 20 min | 9.4 % |
| Whirlpool | Centennial | 20 g | 0 min | 9.4 % |
| Dry Hop | Mosaic | 10 g | 7 day(s) | 10 % |
| Dry Hop | Citra | 30 g | 5 day(s) | 12 % |
| Dry Hop | Centennial | 20 g | 3 day(s) | 10.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|--------|--------|------------|
| Safale S-04 | Ale | Liquid | 250 ml | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|--------|------------|--------|---------|--------|
| Fining | irish moss | 5 g | Boil | 15 min |