

APA

- Gravity **12.2 BLG**
- ABV ---
- IBU **35**
- SRM **5.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss --- %
- Size with trub loss --- **liter(s)**
- Boil time **60 min**
- Evaporation rate --- %/h
- Boil size --- **liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio --- **liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **50 C**, Time **5 min**
- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **5 min** at **50C**
- Keep mash **45 min** at **66C**
- Keep mash **25 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **-8 liter(s)** of **76C** water

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|--------|-------|-----|
| Grain | Pale Malt (2 Row) US | 3.5 kg | 79 % | 4 |
| Grain | Munich Malt | 0.5 kg | 80 % | 23 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|----------|------------|
| Boil | Mosaic | 30 g | 60 min | 10 % |
| Dry Hop | Mosaic | 20 g | 7 day(s) | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |