

APA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **44**
- SRM **4.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.9 liter(s)**
- Total mash volume **19.8 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **14.9 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------------------|----------------|-------|-----|
| Grain | Pilzneński | 3.5 kg (70.7%) | 81 % | 4 |
| Grain | BESTMALZ - Best Heidelberg Wheat Malt | 1 kg (20.2%) | 82 % | 3 |
| Grain | Castlemalting - Cara Clair | 0.25 kg (5.1%) | 78 % | 4 |
| Grain | Abbey Castle | 0.2 kg (4%) | 80 % | 45 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|--------|--------|----------|------------|
| Boil | lunga | 25 g | 60 min | 9.4 % |
| Whirlpool | Simcoe | 50 g | 20 min | 11.4 % |
| Dry Hop | Simcoe | 50 g | 3 day(s) | 11.4 % |
| Dry Hop | Galaxy | 100 g | 3 day(s) | 15 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale | Dry | 11.5 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-------------|--------|---------|--------|
| Water Agent | Gips | 5 g | Mash | 60 min |
| Water Agent | Lactic Acid | 5 g | Mash | 60 min |
| Fining | Whirlfloc | 2.5 g | Boil | 10 min |