

Amer pale ale

- Gravity **12.1 BLG**
- ABV ---
- IBU **72**
- SRM **6.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **66 C**, Time **60 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **19.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------------|---------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 3 kg (54.5%) | 85 % | 7 |
| Grain | Weyermann - Bohemian Pilsner Malt | 2 kg (36.4%) | 81 % | 4 |
| Grain | Munich malt | 0.2 kg (3.6%) | --- % | 14 |
| Grain | Caramunich® typ I | 0.3 kg (5.5%) | 73 % | 80 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Magnum | 50 g | 60 min | 13.5 % |
| Aroma (end of boil) | Bullion | 25 g | 5 min | 7.75 % |
| Aroma (end of boil) | Ultra | 25 g | 0 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
| M15 | Ale | Dry | 10 g | Mangrove |