

Pale Ale

- Gravity **12.1 BLG**
- ABV ---
- IBU **52**
- SRM **6.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **0 %**
- Size with trub loss **20 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **72C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **23.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------------|--------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 3.2 kg (80%) | 85 % | 7 |
| Grain | Weyermann - Light Munich Malt | 0.8 kg (20%) | 82 % | 14 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Phoenix | 30 g | 60 min | 11 % |
| Boil | Progress | 40 g | 10 min | 5.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 20 g | Safale |