

american pale ale

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **40**
- SRM **4.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **23.9 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **18.6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 4 kg (75.5%) | 80 % | 5 |
| Grain | Viking Wheat Malt | 1 kg (18.9%) | 83 % | 5 |
| Grain | Bestmalz Carmel Pils | 0.3 kg (5.7%) | 75 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|----------|--------|--------|------------|
| Boil | Cascade | 20 g | 40 min | 6 % |
| Whirlpool | Citra | 50 g | 15 min | 12 % |
| Whirlpool | Amarillo | 50 g | 15 min | 9.5 % |

Yeasts

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