

Uniwersal Pale Ale

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **42**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **0 min** at **78C**
- Sparge using **20.4 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 | 5 kg (100%) | 85 % | 7 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------|--------|---------|------------|
| Boil | Junga | 10 g | 60 min | 9.7 % |
| Boil | Citra | 10 g | 20 min | 11.9 % |
| Aroma (end of boil) | Citra | 15 g | 5 min | 11.9 % |
| Aroma (end of boil) | citra | 20 g | 0 min | 11.9 % |
| Whirlpool | Citra | 35 g | 120 min | 12 % |

Yeasts

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