

# ALTBIER

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **41**
- SRM **11.6**
- Style **Düsseldorf Altbier**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **0 %**
- Size with trub loss **12 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

## Steps

- Temp **57 C**, Time **10 min**
- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **0 min**

## Mash step by step

- Heat up **10.5 liter(s)** of strike water to **62.3C**
- Add grains
- Keep mash **10 min** at **57C**
- Keep mash **60 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **77C**
- Sparge using **7 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

## Fermentables

| Type  | Name                              | Amount          | Yield  | EBC  |
|-------|-----------------------------------|-----------------|--------|------|
| Grain | Viking Munich Malt                | 1.3 kg (43.3%)  | 78 %   | 16   |
| Grain | Weyermann - Bohemian Pilsner Malt | 1 kg (33.3%)    | 80.5 % | 4    |
| Grain | Viking Pale Ale malt              | 0.52 kg (17.3%) | 80 %   | 5    |
| Grain | Weyermann - Caramunich II         | 0.15 kg (5%)    | 73 %   | 120  |
| Grain | Weyermann - Carafa Special II     | 0.03 kg (1%)    | 65 %   | 1150 |

## Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Perle (PL)            | 20 g   | 60 min | 7 %        |
| Boil    | Perle (PL)            | 10 g   | 30 min | 7 %        |
| Boil    | Saaz (Czech Republic) | 7 g    | 15 min | 4.7 %      |

## Yeasts

| Name                       | Type | Form | Amount | Laboratory |
|----------------------------|------|------|--------|------------|
| Gozdawa Old German Altbier | Ale  | Dry  | 10 g   | ---        |

### Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Fining | Mech irlandzki | 2.5 g  | Boil    | 10 min |