

American Altbier

- Gravity **11.9 BLG**
- ABV ---
- IBU **38**
- SRM **10.7**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **65 C**, Time **90 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **90 min** at **65C**
- Sparge using **20.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|---------------|-------|-----|
| Grain | Pilzneński | 4 kg (72.7%) | 81 % | 4 |
| Grain | Karmelowy Czerwony | 1 kg (18.2%) | 75 % | 60 |
| Grain | Strzegom Karmel 30 | 0.5 kg (9.1%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Warrior | 25 g | 60 min | 15.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 150 ml | Safale |