

ALTBIER 13 Blg # 37

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **45**
- SRM **12.9**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **7.5 liter(s)**
- Total mash volume **9.7 liter(s)**

Steps

- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **7.5 liter(s)** of strike water to **69.2C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **25 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **7.4 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|------|
| Grain | Munich Malt | 1.5 kg (69.8%) | 80 % | 18 |
| Grain | Strzegom Pilzneński | 0.5 kg (23.3%) | 80 % | 4 |
| Grain | Viking Malt żyto prażone | 0.05 kg (2.3%) | 73 % | 1000 |
| Grain | Karmelowy Jasny 30EBC | 0.1 kg (4.7%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil | Magnum | 15 g | 60 min | 13.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------|------|--------|--------|------------------|
| FM42 Stare Nadreńskie | Ale | Liquid | 30 ml | Fermentum Mobile |

Extras

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