

ALTBIER TREMOR

- Gravity **12.9 BLG**
- ABV ---
- IBU **48**
- SRM **13.5**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **29.7 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 **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **18.7 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński | 4 kg (72.7%) | 80 % | 4 |
| Grain | Strzegom Monachijski typ I | 1 kg (18.2%) | 79 % | 16 |
| Grain | Strzegom Karmel 300 | 0.5 kg (9.1%) | 70 % | 300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Hallertauer Taurus | 25 g | 60 min | 15.8 % |
| Boil | Hallertau Spalt Select | 35 g | 20 min | 2.8 % |
| Boil | Hallertau Spalt Select | 15 g | 5 min | 2.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------|------|------|--------|------------|
| Fermentis S-04 | Ale | Dry | 11.5 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | Mech Irlandzki | 5 g | Boil | 10 min |