

# Altbier (robiepiwo.pl)

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **19**
- SRM **7.8**
- Style **Düsseldorf Altbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **25.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.3 liter(s)**

## Steps

- Temp **55 C**, Time **15 min**
- Temp **64 C**, Time **35 min**
- Temp **72 C**, Time **25 min**

## Mash step by step

- Heat up **15.8 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **35 min** at **64C**
- Keep mash **25 min** at **72C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **25.9 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Monachijski          | 4.4 kg (97.8%) | 80 %  | 16  |
| Grain | Strzegom Bursztynowy | 0.1 kg (2.2%)  | 70 %  | 49  |

## Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | Hallertau Spalt Select | 40 g   | 60 min | 3.4 %      |
| Boil    | Hallertau Spalt Select | 20 g   | 10 min | 3.4 %      |

## Yeasts

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