

# Alt (Marxam Brewing)

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **32**
- SRM **12.4**
- Style **Düsseldorf Altbier**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **7 %**
- Size with trub loss **22.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **22.3 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **17.3 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pilsner malt         | 3 kg (60.6%)   | 82 %  | 4    |
| Grain | Viking Munich Malt          | 1.5 kg (30.3%) | 78 %  | 18   |
| Grain | Karmelowy 150 (Viking Malt) | 0.4 kg (8.1%)  | --- % | 140  |
| Grain | Barwiący viking malt        | 0.05 kg (1%)   | --- % | 1400 |

## Hops

| Use for             | Name                | Amount | Time   | Alpha acid |
|---------------------|---------------------|--------|--------|------------|
| Boil                | Hallertau Tradition | 50 g   | 60 min | 5 %        |
| Boil                | Hallertau Tradition | 20 g   | 15 min | 5 %        |
| Aroma (end of boil) | Hallertau Tradition | 5 g    | 0 min  | 5 %        |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safbrew S-33 | Ale  | Dry  | 11.5 g | Fermentis  |