

# Alt Dusseldorwski

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **42**
- SRM **12.6**
- Style **Düsseldorf Altbier**

## Batch size

- Expected quantity of finished beer **66 liter(s)**
- Trub loss **5 %**
- Size with trub loss **69.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **83.8 liter(s)**

## Mash information

- Mash efficiency **95 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **36.4 liter(s)**
- Total mash volume **48.5 liter(s)**

## Steps

- Temp **52 C**, Time **5 min**
- Temp **63 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **36.4 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **5 min** at **52C**
- Keep mash **70 min** at **63C**
- Keep mash **5 min** at **78C**
- Sparge using **59.5 liter(s)** of **76C** water or to achieve **83.8 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount       | Yield  | EBC  |
|-------|-----------------------------|--------------|--------|------|
| Grain | Viking Pilsner malt         | 7 kg (51.7%) | 82 %   | 4    |
| Grain | Platki owsiane              | 2 kg (14.8%) | 85 %   | 3    |
| Grain | Strzegom Monachijski typ II | 1 kg (7.4%)  | 79 %   | 22   |
| Grain | Special B Malt              | 1 kg (7.4%)  | 65.2 % | 315  |
| Sugar | cukier                      | 1 kg (7.4%)  | --- %  | ---  |
| Grain | weyermann przeniczny        | 1 kg (7.4%)  | 85 %   | 4    |
| Grain | Strzegom Czekoladowy ciemny | 0.13 kg (1%) | 68 %   | 1200 |
| Sugar | cukier refermentacja        | 0.4 kg (3%)  | --- %  | ---  |

## Hops

| Use for             | Name                   | Amount | Time   | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil                | Magnum pl              | 70 g   | 60 min | 12.4 %     |
| Boil                | Chinook                | 50 g   | 10 min | 13.3 %     |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 60 g   | 5 min  | 14.3 %     |
| Aroma (end of boil) | Tradition              | 50 g   | 1 min  | 5.5 %      |

## Yeasts

| Name                 | Type | Form | Amount | Laboratory |
|----------------------|------|------|--------|------------|
| Danstar - Nottingham | Ale  | Dry  | 2 g    | Danstar    |