

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 | Płatki 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 |