

Dusseldorf ala Altbier

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **49**
- SRM **11.1**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **20.1 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.7 liter(s)**
- Total mash volume **21.5 liter(s)**

Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **16.7 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **20.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Monachijski typ I | 4 kg (83.9%) | 80 % | 15 |
| Grain | Weyermann pszeniczny jasny | 0.25 kg (5.2%) | 80 % | 6 |
| Grain | Weyermann - Carared | 0.5 kg (10.5%) | 75 % | 45 |
| Grain | Carafa II | 0.02 kg (0.4%) | 70 % | 812 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil | Magnum | 15 g | 60 min | 11.6 % |
| Boil | Magnum | 15 g | 40 min | 11.6 % |
| Boil | Tettnang | 20 g | 15 min | 3.8 % |
| Aroma (end of boil) | Tettnang | 10 g | 1 min | 3.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------------|-------|--------|--------|------------------|
| FM50 Kłosy Kansas | Wheat | Liquid | 80 ml | Fermentum Mobile |

Extras

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | mech irlandzki | 2.5 g | Boil | 10 min |