

# 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

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Danstar - Nottingham	Ale	Dry	2 g	Danstar