Ala ALT

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **22**
- SRM **9.3**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **78 liter(s)**
- Trub loss **4 %**
- Size with trub loss **81.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **8 %/h**
- Boil size **96.1 liter(s)**

Mash information

- Mash efficiency **79 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **70.5 liter(s)**
- Total mash volume **90.7 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **70 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **70.5 liter(s)** of strike water to **54.3C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **70C**
- Keep mash **10 min** at **78C**
- Sparge using **45.8 liter(s)** of **76C** water or to achieve **96.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Wędzony bukiem Viking Malt	8.1 kg *(40.2%)*	82 %	10
Grain	Munich Malt	1.6 kg *(7.9%)*	80 %	18
Grain	Weyermann - Carafa I	0.051 kg *(0.3%)*	70 %	690
Grain	Weyermann Caramunich 3	0.4 kg *(2%)*	76 %	150
Grain	Strzegom Monachijski typ I	10 kg *(49.6%)*	79 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	160 g	10 min	5.5 %
Boil	Tradition	80 g	85 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	46 g	Safbrew

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