

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **46**
- SRM **13.7**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **15.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.9 liter(s)**
- Total mash volume **13.2 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	1.75 kg (52.9%)	80 %	16
Grain	Viking Pale Ale malt	1 kg (30.2%)	80 %	5
Grain	Wheat Malt, Dark	0.3 kg (9.1%)	84 %	18
Grain	Weyermann Caramunich 3	0.2 kg (6%)	76 %	150
Grain	Weyermann - Chocolate Rye	0.06 kg (1.8%)	20 %	650

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	20 g	60 min	11.5 %
Aroma (end of boil)	Lublin (Lubelski)	15 g	10 min	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM42 Stare Nadreńskie	Ale	Liquid	150 ml	Fermentum Mobile