

Dusseldorf Alt (GR)

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **34**
- SRM **15.2**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **25 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	4.5 kg (72%)	79 %	10
Grain	Viking melanoidynowy	0.5 kg (8%)	75 %	60
Grain	Strzegom Karmel 600	0.25 kg (4%)	68 %	601
Grain	Grodziski pszeniczny wędzony dębem	1 kg (16%)	80 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	HALLERTAUER MAGNUM	20 g	60 min	11.7 %
Aroma (end of boil)	HALLERTAUER MAGNUM	30 g	10 min	11.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM42 - STARE NADREŃSKIE	Ale	Liquid	30 ml	Fermentum Mobile