

#21

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **40**
- SRM **4.8**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.1 liter(s)**
- Total mash volume **25.5 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (78.4%)	80 %	5
Grain	Pilznieński	1 kg (15.7%)	81 %	4
Grain	Pszeniczny	0.25 kg (3.9%)	85 %	4
Grain	Cookie Viking malt	0.125 kg (2%)	75 %	50

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	25 g	60 min	15.5 %
Aroma (end of boil)	Cascade PL	25 g	10 min	5.2 %
Dry Hop	Centennial	28 g	7 day(s)	10.5 %
Dry Hop	Chinook	28 g	7 day(s)	13 %
Dry Hop	Cascade	28 g	7 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
fm45	Ale	Slant	30 ml	fermentum mobile

Extras

Type	Name	Amount	Use for	Time
Flavor	skórka żółtego grejpfruta	50 g	Boil	10 min
Herb	suszona mięta	20 g	Boil	10 min