

great leakes christmas ale

- Gravity **18 BLG**
- ABV **7.7 %**
- IBU **27**
- SRM **19.4**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5.5 kg (75.9%)	80 %	5
Grain	Pszeniczny	0.5 kg (6.9%)	85 %	4
Grain	Strzegom Karmel 150	0.25 kg (3.4%)	75 %	150
Grain	Simpsons - Crystal Rye	0.2 kg (2.8%)	73 %	177
Grain	Jęczmień palony	0.1 kg (1.4%)	55 %	985
Grain	Special B Malt	0.25 kg (3.4%)	65.2 %	315
Liquid Extract	Miód Gryczany (Buckwheat Honey)	0.45 kg (6.2%)	70 %	40

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	40 g	60 min	5 %
Boil	Fuggles	30 g	15 min	5 %
Boil	Fuggles	30 g	5 min	5 %