

## xmas ale

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- Gravity **19.1 BLG**
- ABV **8.3 %**
- IBU **27**
- SRM **37.5**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **14.6 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (61.5%)	80 %	5
Grain	Strzegom Pszeniczny	0.5 kg (10.3%)	81 %	4
Grain	Strzegom Karmel 300	0.5 kg (10.3%)	70 %	299
Grain	Weyermann - Carafa I	0.25 kg (5.1%)	70 %	800
Grain	Weyermann - Carafa III	0.125 kg (2.6%)	70 %	1024
Grain	Weyermann - Carared	0.5 kg (10.3%)	75 %	45

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	13.5 %