

## #158 Xmas Ale

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- Gravity **19.6 BLG**
- ABV **8.6 %**
- IBU **25**
- SRM **40.9**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **12.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **14 %/h**
- Boil size **16.8 liter(s)**

### Mash information

- Mash efficiency **69 %**
- Liquor-to-grist ratio **4.2 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **25.2 liter(s)**

### Steps

- Temp **67 C**, Time **47 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **20.3 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **47 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **1.3 liter(s)** of **76C** water or to achieve **16.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	2.14 kg (40.8%)	79 %	6
Grain	Żytni	1 kg (19.1%)	85 %	8
Grain	Płatki owsiane	0.7 kg (13.4%)	85 %	3
Grain	Fawcett - Pszeniczny Czekoladowy	0.2 kg (3.8%)	73 %	1001
Grain	Abbey Malt Weyermann	0.4 kg (7.6%)	75 %	45
Grain	Weyermann - Carafa II Special	0.2 kg (3.8%)	65 %	1150
Grain	Castle Cafe	0.2 kg (3.8%)	75.5 %	480
Sugar	Milk Sugar (Lactose)	0.4 kg (7.6%)	76.1 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	9.5 g	60 min	9.6 %
Boil	lunga	13.5 g	30 min	9.6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Danstar

### Extras

Type	Name	Amount	Use for	Time
Spice	Cynamon	12.16 g	Boil	10 min
Spice	Goździki	5.11 g	Boil	10 min
Spice	Kardamon	3.41 g	Boil	10 min
Spice	Suszona skórka pomarańczy	22.73 g	Boil	10 min
Fining	WhirlFloc	1.42 g	Boil	10 min
Spice	Suszony owoc dzikiej róży	13.64 g	Boil	10 min
Flavor	Zest z 2 pomarańczy i 2 mandarynek z sokiem	28.41 g	Secondary	7 day(s)