

## #126 Xmas Ale

- Gravity **18.2 BLG**
- ABV **7.8 %**
- IBU **30**
- SRM **46.8**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **14 %/h**
- Boil size **14.8 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4.4 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **21.4 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **17.5 liter(s)** of strike water to **72.3C**
- Add grains
- Keep mash **60 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 **14.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	1.15 kg (26.9%)	79 %	6
Grain	Red Activ	0.8 kg (18.7%)	79 %	35
Grain	Płatki owsiane	0.6 kg (14.1%)	85 %	3
Grain	Pszeniczny	0.35 kg (8.2%)	85 %	4
Grain	Fawcett - Pszeniczny Czekoladowy	0.3 kg (7%)	73 %	1001
Grain	Abbey Malt Weyermann	0.25 kg (5.9%)	75 %	45
Grain	Weyermann - Carafa II Special	0.2 kg (4.7%)	65 %	1150
Grain	Strzegom Karmel 150	0.2 kg (4.7%)	75 %	150
Grain	Strzegom Wiedeński	0.12 kg (2.8%)	79 %	10
Sugar	Milk Sugar (Lactose)	0.3 kg (7%)	76.1 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	8 g	60 min	11 %

Boil	lunga	12 g	30 min	11 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
FM21 Odkrycie sezonu	Ale	Slant	110 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Spice	Cynamon	10.7 g	Boil	10 min
Spice	Goździki	4.5 g	Boil	10 min
Spice	Kardamon	3 g	Boil	10 min
Spice	Suszona skórka pomarańczy	20 g	Boil	10 min
Fining	WhirlFloc	1.25 g	Boil	10 min
Spice	Suszony owoc dzikiej róży	12 g	Boil	10 min
Flavor	Laktoza	300 g	Secondary	11 day(s)
Water Agent	Soda oczyszczona	2 g	Secondary	11 day(s)
Water Agent	Woda	400 g	Secondary	11 day(s)
Flavor	Zest z 2 pomarańczy i 2 mandarynek z sokiem	25 g	Secondary	7 day(s)