

## #87 Xmas Ale

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- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **37**
- SRM **32.8**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **8 %/h**
- Boil size **33 liter(s)**

### Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **26.1 liter(s)**
- Total mash volume **34 liter(s)**

### Steps

- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **75 C**, Time **1 min**

### Mash step by step

- Heat up **26.1 liter(s)** of strike water to **74.1C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **40 min** at **72C**
- Keep mash **1 min** at **75C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3.1 kg (39.2%)	79 %	6
Grain	Weyermann - Smoked Malt	1.45 kg (18.4%)	81 %	6
Grain	Płatki owsiane	1.45 kg (18.4%)	85 %	3
Grain	Pszeniczny	0.7 kg (8.9%)	85 %	4
Grain	Abbey Malt Weyermann	0.5 kg (6.3%)	75 %	45
Grain	Weyermann - Carafa II Special	0.7 kg (8.9%)	65 %	1150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	21 g	60 min	11 %
Boil	lunga	29 g	30 min	11 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	250 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Spice	Cynamon	13 g	Boil	9 min
Spice	Goździki	9 g	Boil	9 min
Spice	Kardamon	6 g	Boil	9 min
Spice	Suszona skórka pomarańczy	40 g	Boil	9 min
Spice	Suszony owoc dzikiej róży	40 g	Boil	9 min