

## #86 Xmas Ale

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- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **38**
- SRM **35.2**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **8.05 liter(s)**
- Trub loss **5 %**
- Size with trub loss **8.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **20 %/h**
- Boil size **11 liter(s)**

### Mash information

- Mash efficiency **66 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **9.9 liter(s)**
- Total mash volume **12.8 liter(s)**

### Steps

- Temp **65 C**, Time **35 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **9.9 liter(s)** of strike water to **71.6C**
- Add grains
- Keep mash **35 min** at **65C**
- Keep mash **45 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **4 liter(s)** of **76C** water or to achieve **11 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	1.1 kg (37.9%)	79 %	6
Grain	Weyermann - Smoked Malt	0.5 kg (17.2%)	81 %	6
Grain	Płatki owsiane	0.5 kg (17.2%)	85 %	3
Grain	Pszeniczny	0.25 kg (8.6%)	85 %	4
Grain	Strzegom Czekoladowy jasny	0.22 kg (7.6%)	68 %	400
Grain	Aromatic Malt	0.18 kg (6.2%)	78 %	50
Grain	Weyermann - Carafa II Special	0.15 kg (5.2%)	65 %	1150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	7 g	60 min	11 %
Boil	lunga	9 g	30 min	11 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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FM52 Amerykański Sen	Ale	Slant	90 ml	Fermentum Mobile
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### Extras

Type	Name	Amount	Use for	Time
Spice	Cynamon	4.2 g	Boil	10 min
Spice	Goździki	3 g	Boil	10 min
Spice	Kardamon	2 g	Boil	10 min
Spice	Suszona skórka pomarańczy	10 g	Boil	10 min
Spice	Suszony owoc dzikiej róży	13 g	Boil	10 min

### Notes

- Ciemne słody wrzucić przy mash oucie  
*Oct 8, 2016, 1:12 AM*