

## xmass brown 15

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- Gravity **13.6 BLG**
- ABV ---
- IBU **58**
- SRM **33.3**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **17.8 liter(s)**
- Total mash volume **23.1 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **3 min**

### Mash step by step

- Heat up **17.8 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **3 min** at **76C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (76.2%)	79 %	6
Grain	Brewferm Caramel/Crystal Malt - 120L	0.5 kg (9.5%)	72 %	236
Grain	Weyermann Caramunich II	0.5 kg (9.5%)	72 %	236
Grain	Weyermann - Chocolate Rye	0.25 kg (4.8%)	20 %	493

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	15 g	60 min	13 %
Boil	Simcoe	5 g	60 min	13.2 %
Boil	Mosaic	5 g	60 min	10 %
Boil	Simcoe	7 g	20 min	13.2 %
Boil	Mosaic	7 g	20 min	10 %
Boil	Simcoe	10 g	10 min	13.2 %
Boil	Mosaic	10 g	10 min	10 %
Dry Hop	Simcoe	28 g	7 day(s)	13.2 %

Dry Hop	Mosaic	28 g	7 day(s)	10 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Flavor	Sweet Orange Peel	20 g	Boil	5 min
Spice	Nutmeg	4 g	Boil	5 min
Spice	Cardamom, Green	4 g	Boil	5 min
Spice	Ginger Root	4 g	Boil	5 min
Spice	Star Anise	3 g	Boil	5 min