

## merry=x-mas

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- Gravity **13.1 BLG**
- ABV ---
- IBU **24**
- SRM **24.6**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.3 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **15.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **20.1 liter(s)** of **76C** water or to achieve **30.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3.5 kg (62.5%)	80 %	7
Grain	Strzegom Karmel 150	0.5 kg (8.9%)	75 %	150
Grain	Briess - Dark Chocolate Malt	0.4 kg (7.1%)	60 %	827
Grain	Karmelowy Pszeniczny Strzegom	0.5 kg (8.9%)	79 %	130
Grain	Oats, Flaked	0.2 kg (3.6%)	80 %	2
Liquid Extract	Miód wielokwiatowy	0.5 kg (8.9%)	70 %	40

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	8.8 %
Aroma (end of boil)	East Kent Goldings	25 g	10 min	5.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	100 ml	Fermentum Mobile

### Extras

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

Type	Name	Amount	Use for	Time
Spice	imbir - świeży plastry	30 g	Boil	60 min
Spice	cynamon - 2 laski (3?)	20 g	Boil	10 min
Spice	goździk - 6-8 ziaren	0 g	Boil	10 min
Spice	anyż - 1 gwiazdka (2?)	0 g	Boil	10 min
Spice	gałka muszkatołowa - pół kulki	10 g	Boil	10 min
Spice	kolendra	3 g	Boil	10 min
Spice	jałowiec	3 g	Boil	10 min
Spice	kardamon - 3 duże ziarna	0 g	Boil	10 min
Spice	ziele angielskie - 3 ziarna	0 g	Boil	10 min
Spice	pieprz czarny - 2 ziarna	0 g	Boil	10 min
Spice	skórka pomarańczy - 2 szt	60 g	Boil	10 min
Spice	skórka cytryny - 2 szt	40 g	Boil	10 min
Spice	curraçao	20 g	Boil	10 min
Fining	mech irlandzki	5 g	Boil	5 min