

## 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  |