

## X-mass 2020 - projekt

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- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **40**
- SRM **45.9**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24.1 liter(s)**
- Total mash volume **32.1 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**

### Mash step by step

- Heat up **24.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

### Fermentables

| Type  | Name                             | Amount         | Yield | EBC  |
|-------|----------------------------------|----------------|-------|------|
| Grain | wędzony dębem                    | 2 kg (24.9%)   | 82 %  | 10   |
| Grain | Weyermann pszeniczny jasny       | 1 kg (12.5%)   | 80 %  | 6    |
| Grain | Biscuit Malt                     | 1 kg (12.5%)   | 79 %  | 45   |
| Grain | Żytni                            | 0.5 kg (6.2%)  | 85 %  | 8    |
| Grain | Carafa special                   | 0.5 kg (6.2%)  | 70 %  | 900  |
| Grain | Fawcett - Pale Chocolate         | 0.2 kg (2.5%)  | 71 %  | 600  |
| Grain | Strzegom Monachijski typ I       | 1.3 kg (16.2%) | 79 %  | 16   |
| Grain | Strzegom Czekoladowy 1200        | 0.13 kg (1.6%) | 68 %  | 1202 |
| Grain | Jęczmień palony                  | 0.3 kg (3.7%)  | 55 %  | 985  |
| Grain | Słód Caramunich Typ II Weyermann | 0.4 kg (5%)    | 73 %  | 120  |
| Grain | Płatki pszeniczne                | 0.5 kg (6.2%)  | 85 %  | 3    |
| Grain | Płatki owsiane                   | 0.2 kg (2.5%)  | 85 %  | 3    |

### Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | lunga | 30 g   | 60 min | 11 %       |

|      |       |      |        |      |
|------|-------|------|--------|------|
| Boil | lunga | 20 g | 20 min | 11 % |
|------|-------|------|--------|------|

### Yeasts

| Name               | Type | Form   | Amount | Laboratory  |
|--------------------|------|--------|--------|-------------|
| Wyeast - Irish Ale | Ale  | Liquid | 200 ml | Wyeast Labs |

### Extras

| Type  | Name    | Amount | Use for   | Time      |
|-------|---------|--------|-----------|-----------|
| Spice | Tonka   | 15 g   | Secondary | 2 day(s)  |
| Spice | Płatki  | 50 g   | Secondary | 30 day(s) |
| Spice | cynamon | 40 g   | Secondary | 2 day(s)  |