

# X-MAS

- Gravity **18.9 BLG**
- ABV ---
- IBU **20**
- SRM **49.3**
- 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 **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **50 C**, Time **10 min**
- Temp **62 C**, Time **10 min**
- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **10 min**

## Mash step by step

- Heat up **16.2 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **10 min** at **62C**
- Keep mash **40 min** at **68C**
- Keep mash **10 min** at **72C**
- Sparge using **14.5 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 (62.5%)  | 79 %   | 6   |
| Grain   | Żytni                       | 0.5 kg (7.8%) | 85 %   | 8   |
| Grain   | Czekoladowy                 | 0.2 kg (3.1%) | 60 %   | 788 |
| Adjunct | Płatki Owsiane Błyskawiczne | 0.5 kg (7.8%) | --- %  | --- |
| Grain   | Jęczmień palony             | 0.3 kg (4.7%) | 55 %   | 985 |
| Grain   | Weyermann - Carafa II       | 0.2 kg (3.1%) | 70 %   | 837 |
| Grain   | Strzegom Karmel 150         | 0.2 kg (3.1%) | 75 %   | 150 |
| Sugar   | Milk Sugar (Lactose)        | 0.5 kg (7.8%) | 76.1 % | 0   |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Sybilla | 60 g   | 55 min | 3.5 %      |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safbrew T-58 | Ale  | Dry  | 11.5 g | Fermentis  |

### Extras

| Type   | Name               | Amount | Use for   | Time      |
|--------|--------------------|--------|-----------|-----------|
| Spice  | Cynamon            | 15 g   | Boil      | 10 min    |
| Spice  | Anyż               | 4 g    | Boil      | 10 min    |
| Spice  | Goździki           | 1 g    | Boil      | 10 min    |
| Spice  | Kardamon           | 5 g    | Boil      | 10 min    |
| Spice  | Gałka Muszkatołowa | 4 g    | Boil      | 10 min    |
| Spice  | skórka pomarańczy  | 5 g    | Boil      | 10 min    |
| Flavor | Płatki Dębowe      | 50 g   | Secondary | 14 day(s) |