

# Christmas Ale 2017

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- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **42**
- SRM **38.5**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **10 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **34.5 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **53 C**, Time **15 min**
- Temp **68 C**, Time **55 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **55 min** at **68C**
- Sparge using **20.5 liter(s)** of **76C** water or to achieve **34.5 liter(s)** of wort

## Fermentables

| Type           | Name                            | Amount        | Yield | EBC  |
|----------------|---------------------------------|---------------|-------|------|
| Grain          | Strzegom Pale Ale               | 5 kg (62.5%)  | 79 %  | 6    |
| Grain          | Strzegom Monachijski typ I      | 1 kg (12.5%)  | 79 %  | 16   |
| Grain          | Strzegom Karmel 600             | 0.5 kg (6.3%) | 68 %  | 601  |
| Grain          | Extra black                     | 0.5 kg (6.3%) | 65 %  | 1400 |
| Liquid Extract | Miód Gryczany (Buckwheat Honey) | 1 kg (12.5%)  | 70 %  | 40   |

## Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | Marynka                | 25 g   | 60 min | 10 %       |
| Boil    | Columbus/Tomahawk/Zeus | 10 g   | 60 min | 15 %       |
| Boil    | Columbus/Tomahawk/Zeus | 15 g   | 20 min | 15 %       |
| Boil    | Willamette             | 15 g   | 10 min | 5 %        |
| Boil    | Willamette             | 15 g   | 5 min  | 5 %        |

## Yeasts

| Name         | Type | Form | Amount  | Laboratory |
|--------------|------|------|---------|------------|
| Safale US-05 | Ale  | Dry  | 14.38 g | Fermentis  |

## Extras

| Type  | Name               | Amount | Use for | Time   |
|-------|--------------------|--------|---------|--------|
| Spice | Imbir              | 37.5 g | Boil    | 10 min |
| Spice | Cynamon            | 37.5 g | Boil    | 10 min |
| Spice | Gałka muskatołowa  | 6.25 g | Boil    | 10 min |
| Spice | Anyż               | 9.38 g | Boil    | 10 min |
| Spice | Goździki           | 6.25 g | Boil    | 10 min |
| Spice | Kardamon           | 6.25 g | Boil    | 10 min |
| Other | Skórka pomarańczy  | 0 g    | Boil    | 10 min |
| Other | Skórka z 1 cytryny | 0 g    | Boil    | 10 min |