

# Święta

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **30**
- SRM **22.7**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **27.4 liter(s)**

## Steps

- Temp **69 C**, Time **60 min**

## Mash step by step

- Heat up **20.5 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt       | 3.4 kg (49.6%) | 80 %  | 5   |
| Grain | Strzegom Pilzneński        | 1 kg (14.6%)   | 80 %  | 4   |
| Grain | Biscuit Malt               | 0.1 kg (1.5%)  | 79 %  | 45  |
| Grain | Strzegom Czekoladowy jasny | 0.2 kg (2.9%)  | 68 %  | 400 |
| Grain | Jęczmień palony            | 0.35 kg (5.1%) | 55 %  | 985 |
| Grain | Płatki pszeniczne          | 0.6 kg (8.8%)  | 85 %  | 3   |
| Grain | Płatki owsiane             | 0.6 kg (8.8%)  | 85 %  | 3   |
| Grain | Płatki jęczmienne          | 0.6 kg (8.8%)  | 85 %  | 3   |

## Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Target | 35 g   | 60 min | 10.5 %     |

## Yeasts

| Name                 | Type | Form  | Amount | Laboratory |
|----------------------|------|-------|--------|------------|
| Danstar - Nottingham | Ale  | Slant | 100 ml | Danstar    |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|       |                       |      |      |        |
|-------|-----------------------|------|------|--------|
| Spice | przyprawa do piernika | 60 g | Boil | 10 min |
|-------|-----------------------|------|------|--------|