

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 |
|-------|-----------------------|------|------|--------|