

Świąteczne I

- Gravity **18 BLG**
- ABV **7.7 %**
- IBU **20**
- SRM **31.4**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.6 liter(s) / kg**
- Mash size **19.4 liter(s)**
- Total mash volume **26.9 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|-------|------|
| Grain | Strzegom Pilzneński | 3.5 kg (46.9%) | 80 % | 4 |
| Grain | Strzegom Pszeniczny | 2.3 kg (30.8%) | 81 % | 6 |
| Grain | Karmelowy Jasny 30EBC | 0.5 kg (6.7%) | 75 % | 30 |
| Grain | Strzegom Karmel 600 | 0.15 kg (2%) | 68 % | 601 |
| Grain | Jęczmień palony | 0.12 kg (1.6%) | 55 % | 985 |
| Grain | Strzegom Barwiący | 0.3 kg (4%) | 68 % | 1300 |
| Grain | Płatki owsiane | 0.6 kg (8%) | 60 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Marynka | 21 g | 55 min | 10 % |
| Boil | Lublin (Lubelski) | 10 g | 15 min | 6.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 300 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------|---------------------|--------|---------|-------|
| Spice | zest z pomarańczy | 15 g | Boil | 5 min |
| Spice | cynamon laska 2 szt | 7 g | Boil | 5 min |
| Spice | anyż 4 gwiazdki | 15 g | Boil | 5 min |
| Spice | kardamom 10 ziaren | 15 g | Boil | 5 min |