

Świąteczne

- Gravity **21.3 BLG**
- ABV **9.5 %**
- IBU **30**
- SRM **34.5**
- 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27 liter(s)**
- Total mash volume **36 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|---------------|-------|------|
| Grain | Viking Pale Ale malt | 7 kg (77.8%) | 80 % | 5 |
| Grain | Carafa III | 0.5 kg (5.6%) | 70 % | 1034 |
| Grain | Płatki owsiane | 0.5 kg (5.6%) | 60 % | 3 |
| Grain | Strzegom Karmel 150 | 1 kg (11.1%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | Chmiel Marynka PL | 30 g | 35 min | 9 % |
| Boil | Perle | 20 g | 30 min | 7 % |
| Boil | Chmiel Lubelski PL | 15 g | 20 min | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------|------------------|--------|---------|--------|
| Spice | Goździki | 20 g | Boil | 10 min |
| Spice | Cynamon | 15 g | Boil | 10 min |
| Spice | Imbir | 20 g | Boil | 10 min |
| Spice | Kardamon | 20 g | Boil | 10 min |
| Spice | Ziele Angielskie | 10 g | Boil | 10 min |
| Spice | Gałka muszkatowa | 10 g | Boil | 10 min |