

#5 świąteczne

- Gravity **16.6 BLG**
- ABV ---
- IBU **32**
- SRM **18.6**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 2 kg (32.8%) | 79 % | 6 |
| Grain | Pilzneński | 2 kg (32.8%) | 81 % | 4 |
| Grain | Carahell | 0.5 kg (8.2%) | 77 % | 26 |
| Grain | Biscuit Malt | 0.7 kg (11.5%) | 79 % | 45 |
| Grain | Melanoiden Malt | 0.7 kg (11.5%) | 80 % | 39 |
| Grain | Czekoladowy | 0.2 kg (3.3%) | 60 % | 400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------------|--------|--------|------------|
| Boil | Target | 20 g | 60 min | 10.5 % |
| Boil | Kent Goldings | 20 g | 20 min | 5.5 % |
| Boil | Perle | 20 g | 10 min | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------|------|-------|--------|------------|
| gęstwa | Ale | Slant | 300 ml | #AIPA |

Extras

| Type | Name | Amount | Use for | Time |
|-------|---------------------------|--------|---------|--------|
| Spice | gałka muszkatołowa | 8 g | Boil | 10 min |
| Spice | goździki 14 szt | 0 g | Boil | 10 min |
| Spice | kardamon 2 ziarna | 0 g | Boil | 10 min |
| Spice | cynamon | 7 g | Boil | 10 min |
| Spice | ziele angielskie 2 ziarna | 0 g | Boil | 10 min |
| Spice | imbir | 6 g | Boil | 10 min |

| | | | | |
|-------|----------------------------------|-----|------|--------|
| Spice | starta skórka z pomarańczy 4 szt | 0 g | Boil | 10 min |
| Spice | czarny pieprz 2 szt | 0 g | Boil | 10 min |
| Spice | laska wanilii 1 szt | 0 g | Boil | 10 min |
| Spice | anyż | 3 g | Boil | 10 min |