

święteczne 2016

- Gravity **16.8 BLG**
- ABV ---
- IBU **30**
- SRM **41.1**
- Style **Specialty Beer**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **15.9 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.1 liter(s)**
- Total mash volume **14.3 liter(s)**

Steps

- Temp **68 C**, Time **50 min**

Mash step by step

- Heat up **11.1 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **50 min** at **68C**
- Sparge using **8 liter(s)** of **76C** water or to achieve **15.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------|-----------------|--------|------|
| Grain | Pilzneński | 2.5 kg (73.1%) | --- % | 4 |
| Grain | Pszeniczny | 0.3 kg (8.8%) | --- % | 4 |
| Grain | Strzegom Czekoladowy 1200 | 0.15 kg (4.4%) | --- % | 1202 |
| Grain | Strzegom Karmel 30 | 0.12 kg (3.5%) | --- % | 30 |
| Sugar | Candi Sugar, Amber | 0.125 kg (3.7%) | 78.3 % | 148 |
| Sugar | Cane (Beet) Sugar | 0.125 kg (3.7%) | --- % | 0 |
| Grain | Jęczmień palony | 0.1 kg (2.9%) | --- % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Marynka | 10 g | 60 min | 10.5 % |
| Aroma (end of boil) | Chinook | 15 g | 10 min | 13 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 500 ml | --- |

Extras

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

| | | | | |
|--------|---------------------------|------|------|--------|
| Spice | laska wanilii | 2 g | Boil | 10 min |
| Spice | cynamon starty | 4 g | Boil | 10 min |
| Spice | gałka muskatołowa starta | 2 g | Boil | 10 min |
| Spice | goździki całe | 4 g | Boil | 10 min |
| Spice | imbir starty | 3 g | Boil | 10 min |
| Flavor | skórka pomarańczy suszona | 10 g | Boil | 10 min |
| Flavor | śliwki suszone posiekane | 50 g | Boil | 15 min |