

# Rozgrzewka

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **19**
- SRM **18.4**
- 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 **14 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **23 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **74 C**, Time **10 min**

## Mash step by step

- Heat up **17.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **74C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

| Type    | Name                        | Amount         | Yield | EBC  |
|---------|-----------------------------|----------------|-------|------|
| Grain   | Słód Pilzneński Strzegom    | 3.5 kg (57.9%) | 79 %  | 4    |
| Grain   | Słód Monachijski Strzegom   | 1 kg (16.5%)   | 79 %  | 15   |
| Grain   | Słód Carahell Weyermann     | 0.35 kg (5.8%) | 74 %  | 25   |
| Grain   | Słód Biscuit                | 0.25 kg (4.1%) | 77 %  | 50   |
| Grain   | Płatki owsiane              | 0.25 kg (4.1%) | 85 %  | 3    |
| Grain   | Słód karmelowy 400 Strzegom | 0.25 kg (4.1%) | 68 %  | 400  |
| Grain   | Słód karmelowy 600 Strzegom | 0.1 kg (1.7%)  | 68 %  | 600  |
| Grain   | Słód barwiący Strzegom      | 0.05 kg (0.8%) | 65 %  | 1400 |
| Adjunct | Laktoza                     | 0.3 kg (5%)    | --- % | ---  |

## Hops

| Use for | Name               | Amount | Time   | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil    | East Kent Goldings | 35 g   | 60 min | 5.1 %      |
| Boil    | Ahtanum            | 20 g   | 5 min  | 3.4 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale T-58 | Ale  | Dry  | 11.5 g | Fermentis  |

## Extras

| Type   | Name                       | Amount | Use for | Time  |
|--------|----------------------------|--------|---------|-------|
| Spice  | Przyprawa do piernika      | 1 g    | Boil    | 5 min |
| Flavor | Skórki słodkiej pomarańczy | 5 g    | Boil    | 5 min |

## Notes

- Przyprawa do piernika - mieszanka przypraw korzennych do piernika - cynamon mielony, kardamon, imbir, goździki, anyż  
*Oct 27, 2019, 1:05 PM*