

# Zimowe

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **29**
- SRM **41.1**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.2 liter(s)**
- Total mash volume **29.6 liter(s)**

## Steps

- Temp **67 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **22.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield | EBC  |
|-------|-----------------------------|---------------|-------|------|
| Grain | Strzegom Pale Ale           | 4 kg (50.6%)  | 79 %  | 6    |
| Grain | Strzegom Monachijski typ I  | 1 kg (12.7%)  | 79 %  | 16   |
| Grain | Strzegom Karmel 150         | 0.5 kg (6.3%) | 75 %  | 150  |
| Grain | Extra black                 | 0.2 kg (2.5%) | 65 %  | 1400 |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (2.5%) | 68 %  | 1200 |
| Grain | Jęczmień palony             | 0.5 kg (6.3%) | 55 %  | 1000 |
| Grain | Płatki owsiane              | 1 kg (12.7%)  | 85 %  | 3    |
| Sugar | Brown Sugar, Light          | 0.5 kg (6.3%) | 100 % | 16   |

## Hops

| Use for      | Name        | Amount | Time   | Alpha acid |
|--------------|-------------|--------|--------|------------|
| Boil         | bez chmielu | 0 g    | 10 min | 1 %        |
| timer: 10min |             |        |        |            |
| Boil         | Marynka     | 10 g   | 60 min | 10 %       |
| Boil         | Magnum      | 20 g   | 60 min | 13.5 %     |

## Yeasts

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

### Extras

| Type  | Name            | Amount | Use for | Time   |
|-------|-----------------|--------|---------|--------|
| Spice | laktoza         | 500 g  | Boil    | 15 min |
| Spice | przyprawy różne | 0 g    | Boil    | 10 min |

cynamon  
 kolendra  
 goździki  
 ziele angielskie mielone  
 gałka muskatołowa  
 imbir  
 kardamon  
 skórka pomarańczy  
 skórka cytryny  
  
 miód gryczany 700g