

# Christmas Spiced Stout Modyfikowany

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **20**
- SRM **3**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **1 %**
- Size with trub loss **24.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **1 %/h**
- Boil size **25 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **17.7 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **25 liter(s)** of wort

## Fermentables

| Type  | Name              | Amount        | Yield | EBC |
|-------|-------------------|---------------|-------|-----|
| Grain | Pilzneński        | 4 kg (67.8%)  | 81 %  | 4   |
| Grain | Karmelowy 150     | 1 kg (16.9%)  | --- % | --- |
| Grain | Wiedeński         | 0.5 kg (8.5%) | --- % | --- |
| Grain | Czekoladowy jasny | 0.2 kg (3.4%) | --- % | --- |
| Grain | Barwiący          | 0.2 kg (3.4%) | --- % | --- |

## Hops

| Use for             | Name               | Amount | Time   | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Boil                | East Kent Goldings | 30 g   | 60 min | 5.1 %      |
| Aroma (end of boil) | East Kent Goldings | 30 g   | 10 min | 5.1 %      |
| Whirlpool           | East Kent Goldings | 30 g   | 0 min  | 5.1 %      |

## Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 100 ml | Fermentis  |

## Extras

| Type   | Name                | Amount | Use for | Time   |
|--------|---------------------|--------|---------|--------|
| Flavor | Skórka z pomarańczy | 50 g   | Boil    | 15 min |
| Spice  | Kardamon            | 5 g    | Boil    | 15 min |
| Flavor | Suszone śliwki      | 350 g  | Boil    | 10 min |
| Flavor | Miód gryczany       | 200 g  | Boil    | 15 min |
| Spice  | Imbir               | 25 g   | Boil    | 10 min |
| Spice  | Goździki            | 2 g    | Boil    | 5 min  |