

# Świąteczne z jabłkiem

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **10**
- SRM **5.9**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **19.2 liter(s)**

## Steps

- Temp **68 C**, Time **70 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **2.4 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount        | Yield | EBC |
|-------|---------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński | 1 kg (31.3%)  | 80 %  | 4   |
| Grain | Monachijski         | 1 kg (31.3%)  | 80 %  | 16  |
| Grain | carabody            | 0.2 kg (6.3%) | 70 %  | 8   |
| Grain | Strzegom Pszeniczny | 1 kg (31.3%)  | 81 %  | 6   |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Oktawia | 10 g   | 30 min | 7.1 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11 g   | Fermentis  |

## Extras

| Type   | Name                           | Amount  | Use for | Time      |
|--------|--------------------------------|---------|---------|-----------|
| Flavor | Sok NFC pasteryzowany jablkowy | 50000 g | Primary | 10 day(s) |
| Flavor | Cynamon (laska)                | 2 g     | Boil    | 5 min     |

|        |                 |     |          |     |
|--------|-----------------|-----|----------|-----|
| Flavor | Aromat jabłkowy | 1 g | Bottling | --- |
|--------|-----------------|-----|----------|-----|