

# Milk stout z Kuźni Piwowarów 2016

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **31**
- SRM **28.6**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.6 liter(s)**
- Total mash volume **18.1 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **13.6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **78C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

## Fermentables

| Type                                                       | Name                           | Amount          | Yield | EBC  |
|------------------------------------------------------------|--------------------------------|-----------------|-------|------|
| Grain                                                      | Briess - Pale Ale Malt         | 2.3 kg (50.9%)  | 80 %  | 7    |
| Grain                                                      | Strzegom<br>Czekoladowy jasny  | 0.15 kg (3.3%)  | 68 %  | 400  |
| Grain                                                      | Carafa II                      | 0.15 kg (3.3%)  | 70 %  | 812  |
| Grain                                                      | Carafa III                     | 0.15 kg (3.3%)  | 70 %  | 1034 |
| Grain                                                      | Strzegom Karmel<br>150         | 0.25 kg (5.5%)  | 75 %  | 150  |
| Grain                                                      | Strzegom Karmel<br>300         | 0.2 kg (4.4%)   | 70 %  | 299  |
| Grain                                                      | Briess - Extra<br>Special Malt | 0.22 kg (4.9%)  | 73 %  | 256  |
| Grain                                                      | Strzegom<br>Monachijski typ I  | 0.45 kg (10%)   | 79 %  | 16   |
| Grain                                                      | Płatki owsiane                 | 0.65 kg (14.4%) | 85 %  | 3    |
| prażone 30 min. 150°C w piekarniku dwa dni przed warzeniem |                                |                 |       |      |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 30 g   | 60 min | 8.7 %      |

## Yeasts

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 125 ml | ---        |

## Extras

| Type                                                                                                                                                                                                                                                                                                                                                       | Name            | Amount | Use for   | Time     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------|-----------|----------|
| Flavor                                                                                                                                                                                                                                                                                                                                                     | Wiórki kokosowe | 400 g  | Secondary | 7 day(s) |
| wiórki - polecam z Lidla, są niesiarkowane) - 30 min. na patelni na małym ogniu, tłuszcz odsączany przez dobę na ręcznikach papierowych (lasagne - mocno i ciasno zwinięte, i w worku reklamowym) - warto dokonać jednej zmiany ręczników, dodać na zimno (bezpośrednio przed dodaniem podgrzać w celu sterylizacji) 7 dni + 3 dni cold crash przynajmniej |                 |        |           |          |
| Flavor                                                                                                                                                                                                                                                                                                                                                     | Espresso        | 200 g  | Secondary | 7 day(s) |
| 6sz - ok. 200 ml                                                                                                                                                                                                                                                                                                                                           |                 |        |           |          |
| Spice                                                                                                                                                                                                                                                                                                                                                      | Laska wanili    | 4 g    | Secondary | 7 day(s) |
| 4 laski wanilii - na zimno 7 dni cichą (podgrzane lekko na patelni)                                                                                                                                                                                                                                                                                        |                 |        |           |          |
| Flavor                                                                                                                                                                                                                                                                                                                                                     | Laktoza         | 500 g  | Boil      | 15 min   |