

#16 Milkżynier

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **25**
- SRM **40**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **72 C**, Time **60 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **79.4C**
- Add grains
- Keep mash **60 min** at **72C**
- Keep mash **15 min** at **76C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|--------|------|
| Grain | Viking Pale Ale malt | 4 kg (77.7%) | 80 % | 5 |
| Grain | Strzegom Czekoladowy jasny | 0.1 kg (1.9%) | 68 % | 400 |
| Grain | Strzegom Czekoladowy ciemny | 0.3 kg (5.8%) | 68 % | 1200 |
| Grain | Jęczmień palony | 0.3 kg (5.8%) | 55 % | 985 |
| Grain | Strzegom Karmel 600 | 0.3 kg (5.8%) | 68 % | 601 |
| Sugar | Milk Sugar (Lactose) | 0.15 kg (2.9%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | Citra | 20 g | 60 min | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |