

Milk&Coffee

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **23**
- SRM **27.9**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **76C**
- Sparge using **21 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|-------|------|
| Grain | Pale ale (Malteurop) | 4 kg (85.1%) | 80 % | 7 |
| Grain | Strzegom Czekoladowy ciemny | 0.25 kg (5.3%) | 68 % | 1200 |
| Grain | Karmelowy Jasny 30EBC | 0.25 kg (5.3%) | 75 % | 30 |
| Grain | Strzegom Barwiący | 0.2 kg (4.3%) | 68 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 18 g | 60 min | 13 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 200 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|---------|--------|---------|--------|
| Flavor | laktoza | 500 g | Boil | 15 min |
| Flavor | Kawa | 100 g | Boil | 5 min |