

# Milk Stout

- Gravity **14.5 BLG**
- ABV ---
- IBU **45**
- SRM **48.3**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **11 %**
- Size with trub loss **23.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **26 liter(s)**

## Mash information

- Mash efficiency **92 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.3 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **15.3 liter(s)** of strike water to **72.3C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount         | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Pale Ale               | 3.7 kg (74.7%) | 78 %  | 4   |
| Grain | Czekoladowy            | 0.35 kg (7.1%) | 85 %  | 887 |
| Grain | Simpsons - Coffee Malt | 0.3 kg (6.1%)  | 80 %  | 296 |
| Grain | Strzegom Karmel        | 0.4 kg (8.1%)  | 80 %  | 299 |
| Grain | Jęczmień palony        | 0.2 kg (4%)    | 55 %  | 985 |

## Hops

| Use for | Name            | Amount | Time   | Alpha acid |
|---------|-----------------|--------|--------|------------|
| Boil    | Northern Brewer | 25 g   | 60 min | 8.5 %      |
| Boil    | Magnum          | 25 g   | 25 min | 13.5 %     |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.5 g | Safale     |

## Extras

| Type  | Name    | Amount | Use for | Time   |
|-------|---------|--------|---------|--------|
| Other | laktoza | 500 g  | Boil    | 10 min |

## Notes

- Laktoza podbija ekstrakt początkowy brzezki do 16 Blg  
*Dec 2, 2015, 3:54 PM*