

# Milky FES

- Gravity **20.7 BLG**
- ABV ---
- IBU **73**
- SRM **42.3**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **6.3 liter(s)**
- Total mash volume **8.8 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **40 min**

## Mash step by step

- Heat up **6.3 liter(s)** of strike water to **72.7C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **40 min** at **72C**
- Sparge using **9.4 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

## Fermentables

| Type    | Name                        | Amount         | Yield | EBC |
|---------|-----------------------------|----------------|-------|-----|
| Grain   | Strzegom Pale Ale           | 1 kg (27.4%)   | 79 %  | 6   |
| Grain   | Strzegom pszeniczny         | 0.5 kg (13.7%) | 81 %  | 6   |
| Grain   | Strzegom Karmel 150         | 0.5 kg (13.7%) | 75 %  | 150 |
| Grain   | Strzegom Czekoladowy jasny  | 0.5 kg (13.7%) | 68 %  | 400 |
| Sugar   | Laktoza                     | 0.25 kg (6.8%) | --- % | --- |
| Adjunct | Płatki owsiane błyskawiczne | 0.6 kg (16.4%) | --- % | --- |
| Adjunct | Płatki pszenne błyskawiczne | 0.3 kg (8.2%)  | --- % | --- |

## Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | lunga (PL) | 15 g   | 45 min | 10.8 %     |
| Boil    | lunga (PL) | 15 g   | 30 min | 10.8 %     |
| Boil    | lunga (PL) | 30 g   | 15 min | 10.8 %     |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                                                |     |     |     |     |
|------------------------------------------------|-----|-----|-----|-----|
| Mangrove Jack's<br>M42 New World<br>Strong Ale | Ale | Dry | 5 g | --- |
|------------------------------------------------|-----|-----|-----|-----|

### Extras

| Type  | Name            | Amount | Use for   | Time      |
|-------|-----------------|--------|-----------|-----------|
| Spice | Laski vanilii   | 10 g   | Boil      | 30 min    |
| Spice | Ziarno kakaowca | 100 g  | Boil      | 30 min    |
| Spice | Kawa z Etiopii  | 100 g  | Secondary | 14 day(s) |