

# Milki łej

- Gravity **15.4 BLG**
- ABV ---
- IBU **35**
- SRM **50.8**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **45 liter(s)**
- Trub loss **5 %**
- Size with trub loss **47.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **57 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **37.2 liter(s)**
- Total mash volume **49.6 liter(s)**

## Steps

- Temp **62 C**, Time **20 min**
- Temp **75 C**, Time **10 min**
- Temp **68 C**, Time **45 min**

## Mash step by step

- Heat up **37.2 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **45 min** at **68C**
- Keep mash **10 min** at **75C**
- Sparge using **32.2 liter(s)** of **76C** water or to achieve **57 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (37.3%)	79 %	6
Grain	Monachijski	1.35 kg (10.1%)	80 %	16
Grain	Special B Malt	0.25 kg (1.9%)	65.2 %	400
Grain	Carafa III	0.56 kg (4.2%)	70 %	1400
Grain	Barley, Flaked	1 kg (7.5%)	70 %	4
Grain	Jęczmień palony	0.5 kg (3.7%)	55 %	1150
Grain	Whole Pale Venture	0.9 kg (6.7%)	75 %	4
Grain	Marris Otter	0.98 kg (7.3%)	75 %	7
Grain	Carahell	1.72 kg (12.8%)	77 %	26
Grain	Weyermann - Carabohemian	0.13 kg (1%)	73 %	195
Sugar	Milk Sugar (Lactose)	1 kg (7.5%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	90 g	60 min	4.5 %
Boil	Fuggles	75 g	55 min	4.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale
Safale US-05	Ale	Dry	11.5 g	Safale

## Notes

- Carabohemian, Special B, Carafa typ III, palony jęczmień dodane tylko na 68 st. (po 20 min zacierania)

brzeczka do fermentacji podzielona na pół:

Safale S-04

Safale US-05

*Aug 16, 2016, 11:03 PM*