

# CMS

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **26**
- SRM **37.4**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **27.6 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **20.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **17.9 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.2 kg (31.8%)	81 %	4
Grain	Viking Pale Ale malt	1.7 kg (24.6%)	80 %	5
Grain	Strzegom Barwiący	0.55 kg (8%)	68 %	1300
Grain	Płatki owsiane	0.7 kg (10.1%)	85 %	3
Grain	Monachijski	1.1 kg (15.9%)	80 %	16
Grain	Strzegom Karmel 150	0.33 kg (4.8%)	75 %	150
Grain	Strzegom Karmel 600	0.33 kg (4.8%)	68 %	601

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	50 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Spice	Wiśnie	1000 g	Secondary	14 day(s)
Spice	Porzeczki	1000 g	Secondary	14 day(s)
Spice	Laktoza	500 g	Boil	15 min

## Notes

- Sól barwiący wrzucony tuż przed podłączeniem palnika na grzanie na wygrzew.  
Ilości owoców podane na 8 litrowe mini-warki.  
<https://www.homebrewersassociation.org/how-to-brew/how-to-add-fruit-to-beer/>  
<http://www.wiki.piwo.org/Laktoza>  
Sok 70%, 10 BLG  
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