

# Xmass Belgsperyment

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **30**
- SRM **19.6**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **25 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **18.8 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (44.4%)	80 %	4
Grain	Castle Pale Ale	2 kg (29.6%)	80 %	8
Grain	Kawowy	0.25 kg (3.7%)	75 %	500
Grain	Crystal 150EBC	1 kg (14.8%)	78 %	150
Sugar	Candi Sugar, Clear	0.5 kg (7.4%)	78.3 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	15.5 %
Boil	Saphir	15 g	15 min	2.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM26 Belgijskie Pagórki	Ale	Liquid	200 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
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Spice	goździki	5 g	Boil	10 min
Spice	Cynamon kora	5 g	Boil	10 min