

# Extra Special Danker

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **33**
- SRM **13.4**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **21.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **11 %/h**
- Boil size **28.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **65 C**, Time **45 min**
- Temp **70 C**, Time **15 min**
- Temp **80 C**, Time **8 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **15 min** at **70C**
- Keep mash **8 min** at **80C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **28.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.25 kg (77.3%)	80 %	5
Grain	Strzegom Karmel 200	0.2 kg (3.6%)	75 %	200
Grain	Strzegom Bursztynowy	0.5 kg (9.1%)	70 %	49
Grain	Pszeniczny	0.3 kg (5.5%)	85 %	4
Grain	Strzegom Karmel 400	0.25 kg (4.5%)	68 %	401

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	30 g	40 min	11.7 %
Aroma (end of boil)	Fuggles	15 g	5 min	4.5 %
Aroma (end of boil)	Fuggles	20 g	1 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	Safale