

# Extra Special Danker

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- 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     |