

# **ANTISTATIC - MB**

**LDPE- and PP-Film  
PP-Injection Moulding  
SB- and ABS-Injection  
Moulding**

# Product Survey

Produkt	Food Approval BfR	Remarks
HP7041/05AS	up to max. 3,0%	for LDPE, Amin-containing max. 230°C
HP77571AS	up to max. 10%	for LDPE, Amid-containing, good printability, low smell
HP 75590AS	up to max. 3,0%	for LDPE, LLDPE, HDPE Amid-containing, Quick Start AS
PP 78680AS20	up to max. 10%	for PPH, good printability
PP 791310AS	up to max. 10%	for PPC, highly effective
SB 78700AS	up to max. 5,0%	for SB und ABS

Food Approval: suitable for direct food contact applications according to regulations BfR.

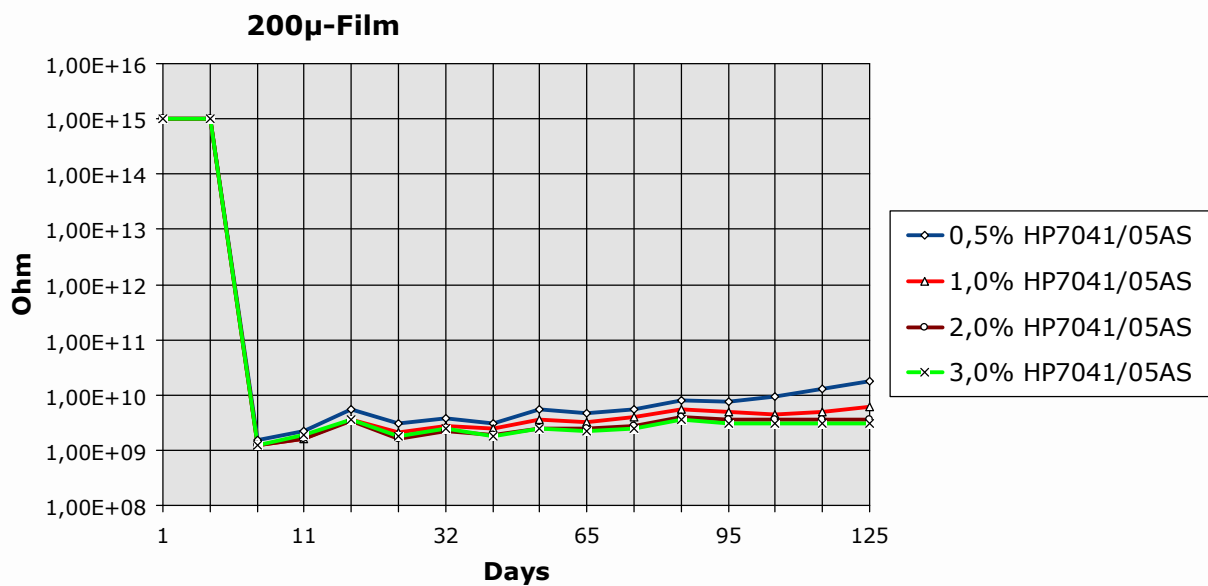
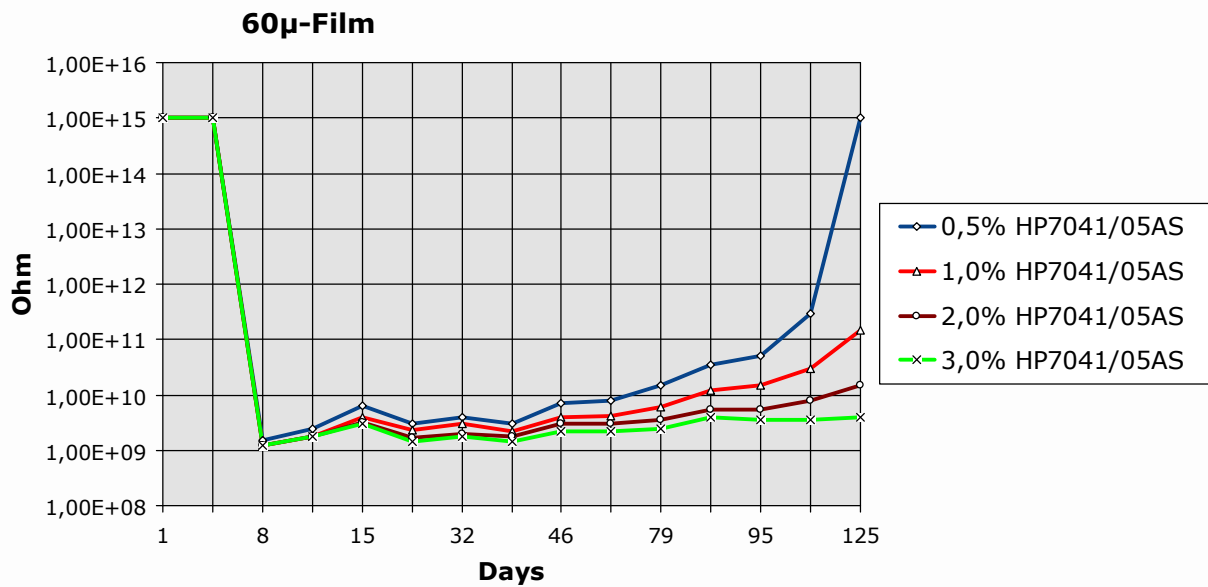
BfR: Bundesinstitut für Risikobewertung

Informations for other countries upon request.

All information in this brochure has been obtained from laboratory tests under ideal and closely controlled conditions. The information should act as a guide only and should not be construed as guaranteeing specific properties or suitability for a particular application. Therefore, trials by customers using their polymers and their processing conditions are highly recommended.

# Antistatic property of HP7041/05AS in LDPE Films

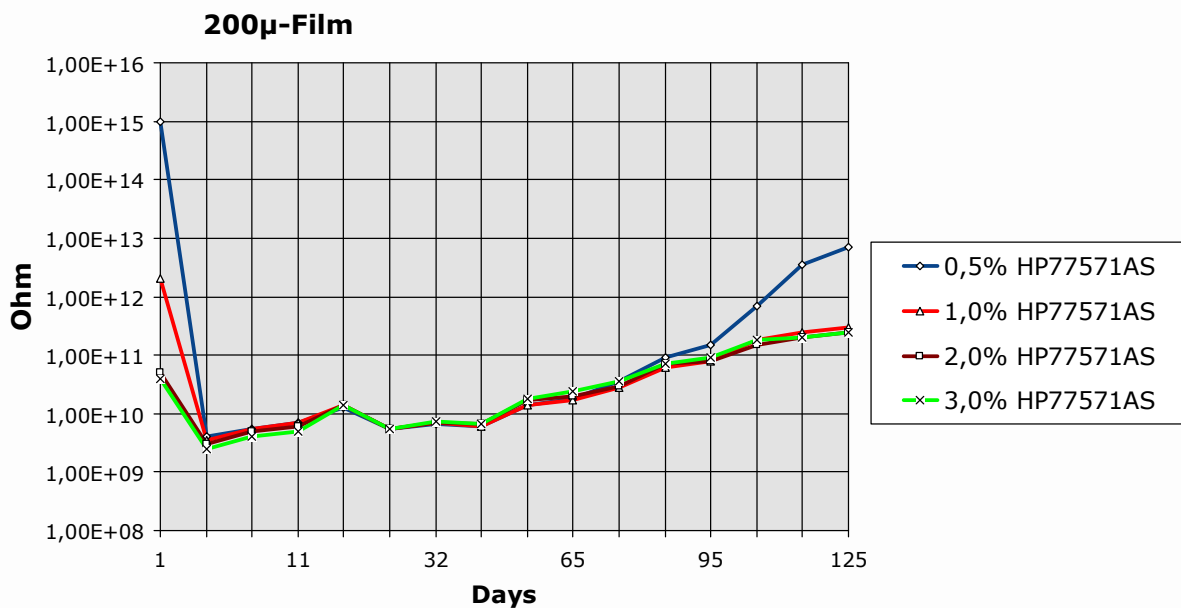
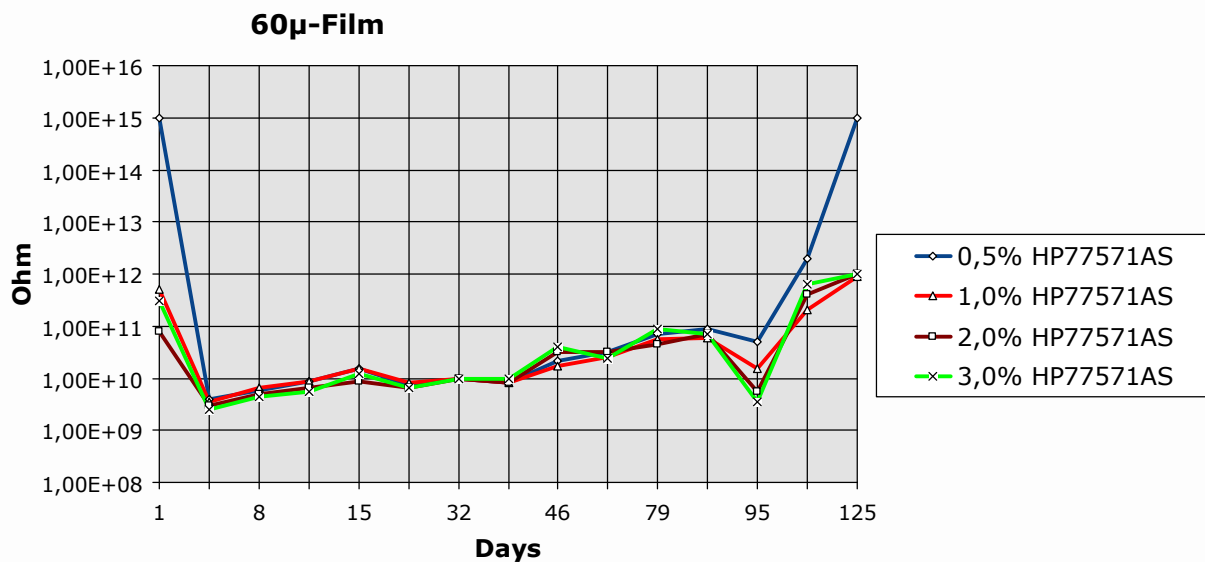
## Criteria: Surface Resistivity (Ohm)



Measurement results were obtained from open stored films. Development of antistatic property is independent to wall thickness of film. The maximum antistatic property is developed after 8 days, regardless what dosage was applied. Obviously, applied dosage level is decisive for duration of antistatic protection. In practice a dosage of 1% should be sufficient for application. Too high dosages will deteriorate the printability of film.

# Antistatic property of HP77571AS in LDPE Films

## Criteria: Surface Resistivity (Ohm)

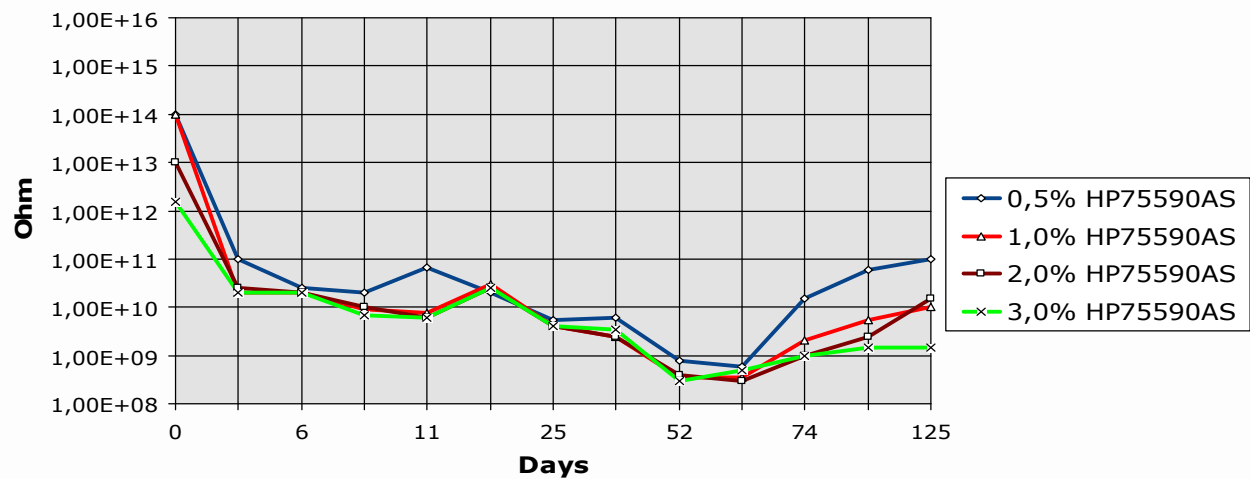


Measurement results were obtained from open stored films. Development of antistatic property is independent to wall thickness of film. The higher the dosage the better is the antistatic property immediately after production of the film. The maximum antistatic property is developed after 4 days independent what dosage was applied. Applied dosage level is decisive for duration of antistatic property. In practice a dosage of 1% should be sufficient for application in most cases. Films containing MAXITHEN® HP77571AS show usually good printability and low smell.

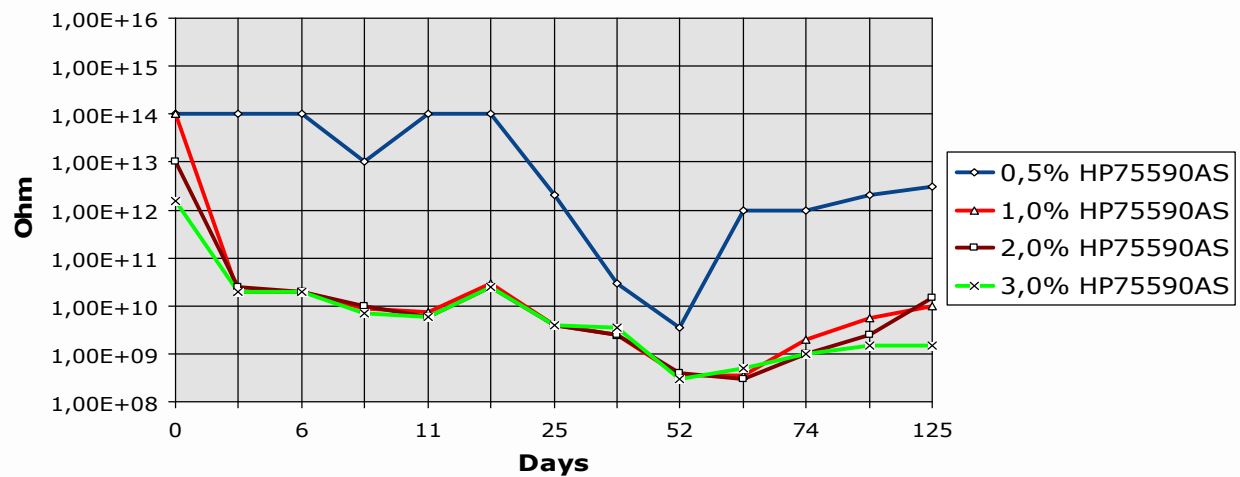
# Antistatic property of HP75590 AS in LDPE Films

Antistatic MB with quick start properties  
Criteria: Surface Resistivity (Ohm)

**LDPE Film open stored , 60μ**



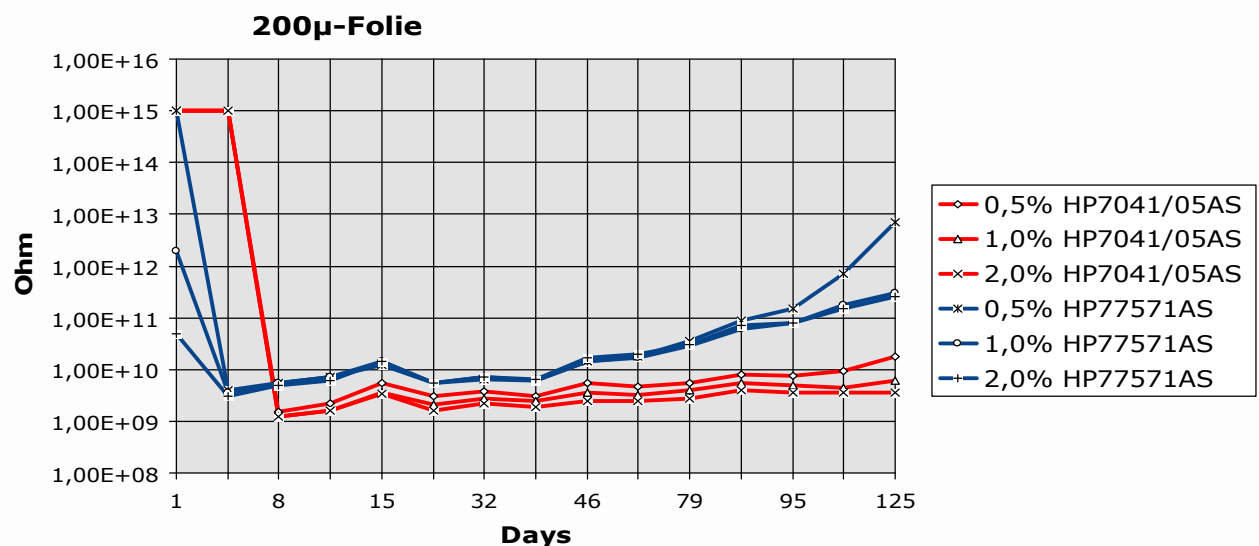
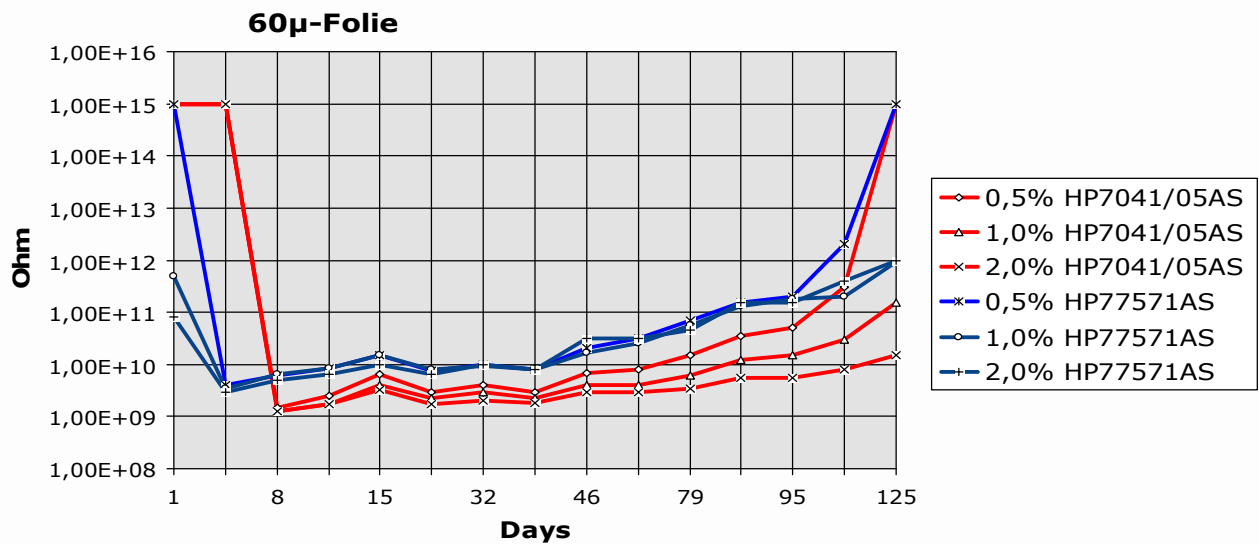
**LDPE Film in role stored, 60μ**



# Antistatic property

## Comparison of various systems in LDPE Films

Criteria: Surface Resistivity (Ohm)

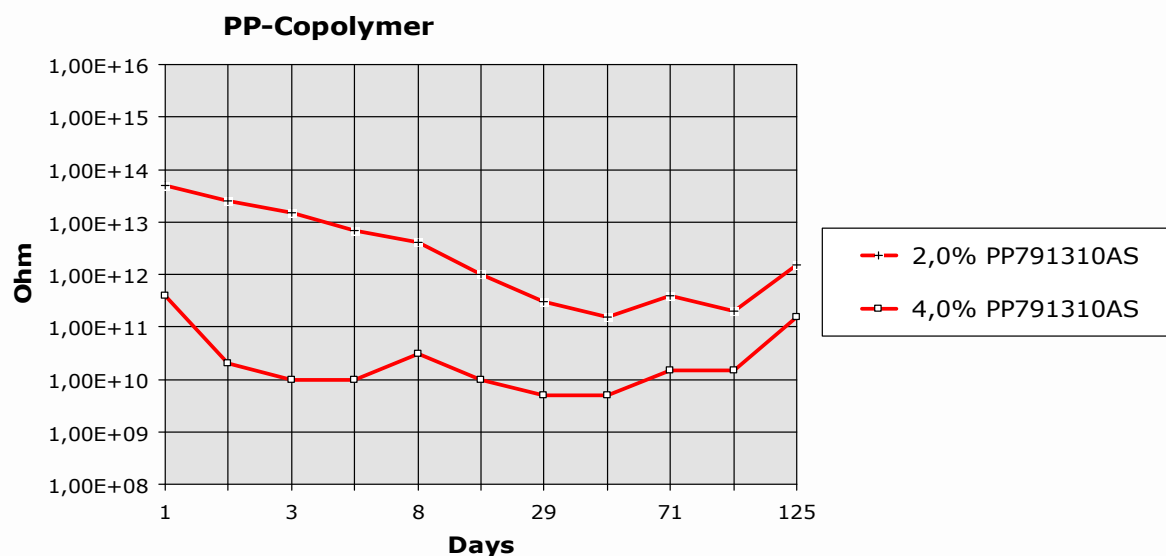
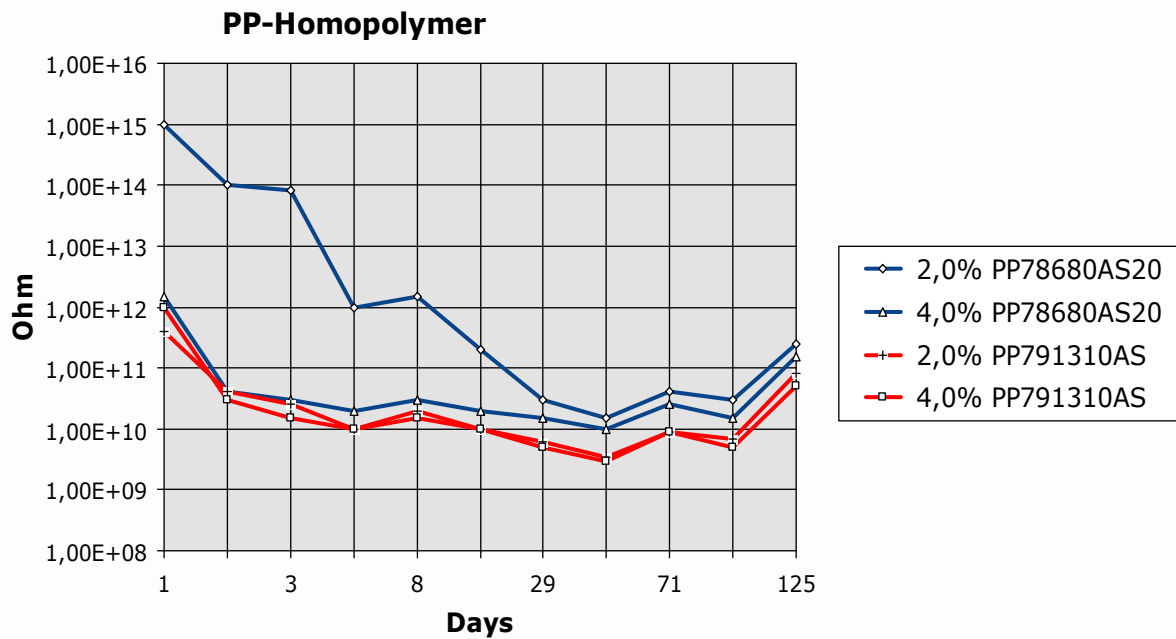


Measurement results were obtained from open stored films. This diagrams are directly comparing the Amine and Amide system. The Amine system shows gradually better efficiency at final antistatic properties, but the behaviour at the starting phase is absolutely different.

# Antistatic property

## Comparison of various systems in PP- Injection

### Criteria: Surface Resistivity (Ohm)



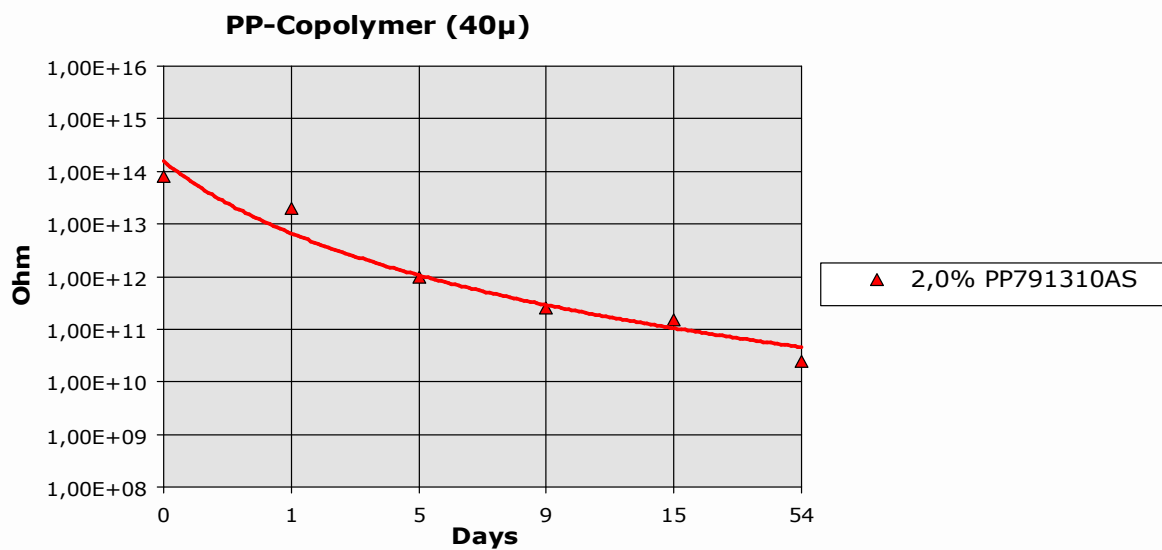
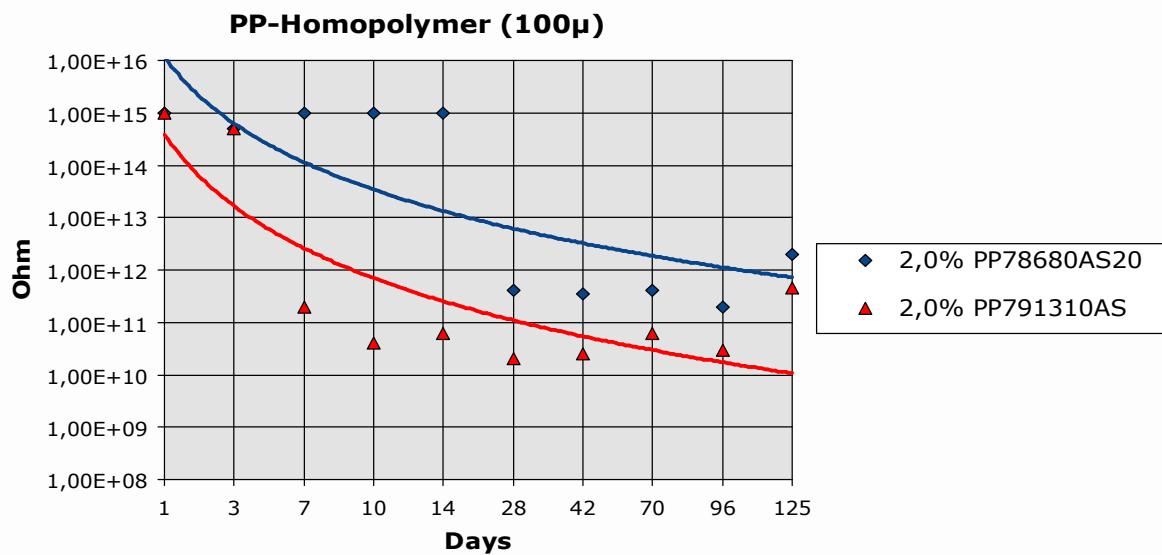
This elaboration at 2mm plaques shows that antistatic masterbatch applied at injection moulded PP Copolymer needs a higher dosage level and use of more effective products like PP791310AS compared to PP Homopolymer.

# Antistatic property

## Comparison of various systems in PP- Films

### Criteria: Surface Resistivity (Ohm)

### Trends



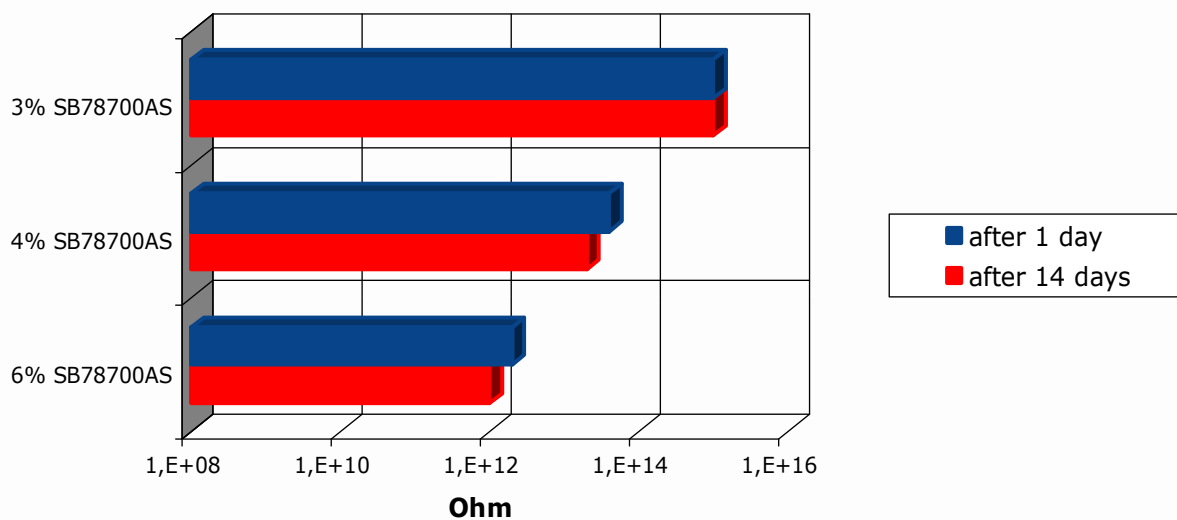
This elaboration at film applications shows efficiency of antistatic masterbatch applied in PP Copolymer and in PP Homopolymer. Also in this application PP Copolymer needs higher dosage level or use of more effective products like PP791310AS.



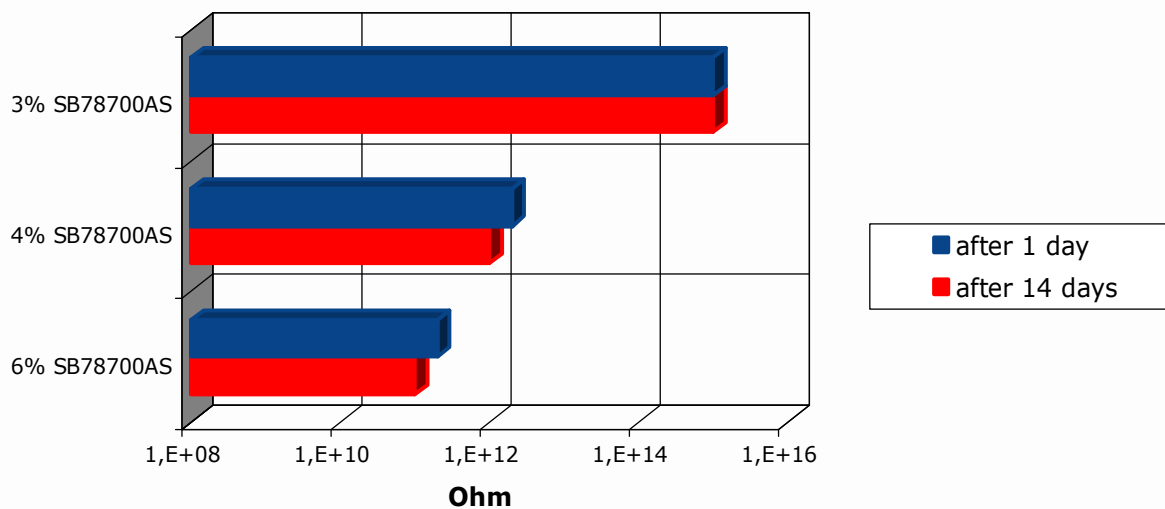
# Antistatic property of SB78700AS

Criteria: Surface Resistivity (Ohm)

**Polystyrene-high impact**



**ABS**



Our product MAXITHEN® SB78700AS is recommended especially for use in styrene copolymers as impact polystyrene and ABS. It is not directly designed for applications in crystal clear general purpose polystyrene.

**Customer Service**

**Antistatic agents in various polymers**

**11/2004**

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