# TAROPRENE® 1 A80 E1N

### Thermoplastic Vulcanizate

Taro Plast S.p.A.

#### Message:

Thermoplastic Elastomer Vulcanized. This TPE-V compound combines the typical performance of a vulcanized elastomer with the easy processing of a thermoplastic compound. Taroprene is totally recyclable and it can be produced in standard grades and in tailor-made grades. Available in natural, black and colored grade.

Processing Method   Injection Molding   Physical   Mominal Value   Unit   Test Method   Injection Molding   Physical   Mominal Value   Unit   Test Method   Injection Molding   Physical   Nominal Value   Unit   Test Method   Injection Molding   Physical   Nominal Value   Unit   Test Method   Injection Molding   Physical   Nominal Value   Unit   Test Method   Injection Role (MFR) (190°C/S.0 kg)   3.0   g/10 min   ISO 1183   SO 1183   Phardness   Nominal Value   Unit   Test Method   Test Method   Nominal Value   Unit   Test Method   Test Method   Physical   Test Method   Physical   Nominal Value   Unit   Test Method   Test Method   Physical   Nominal Value   Unit   Test Method   Physical   Nominal Value   Unit   Test Method   Physical   Nominal Value   Unit   Test Method   Physical   Physical   Nominal Value   Unit   Physical   Physical	General Information			
Black           Colors Available         Natural Color           Processing Method         Injection Molding           Physical         Nominal Value         Unit         Test Method           Density         0.960         g/cm³         SO 1183           Meth Mass-Flow Rate (MFR) (190°C/5.0 kg)         3.0         g/10 min         SO 1133           Hardness         Nominal Value         Unit         Test Method           Shore Hardness (Shore A, 3 sec)         80         Unit         Test Method           Tensile Stress ¹         4.70         MPa         ASTM D412           100% Strain         4.70         MPa         ASTM D412           Tensile Strength² (Break)         8.80         MPa         ASTM D412           Tensile Strength² (Break)         540         kN/m         ASTM D412           Tensile Strength³ (Break)         540         kN/m         ASTM D412     <	Features	Good Processability		
Colors Available Natural Color           Processing Method         Injection Molding           Physical         Nominal Value         Unit         Test Method           Density         0.960         g/cm²         ISO 1183           Melt Mass-Flow Rate (MFR) (190°C/50 kg)         3.0         g/10 min         ISO 1133           Hardness         Nominal Value         Unit         Test Method           Shore Hardness (Shore A, 3 sec)         80         Unit         Test Method           Elastomers         Nominal Value         Unit         Test Method           Tonsile Stress¹         4.70         MPa         ASTM D412           100% Strain         4.70         MPa         ASTM D412           Tensile Strength <sup>2</sup> (Break)         8.80         MPa         ASTM D412           Tensile Elongation <sup>3</sup> (Break)         540         %         ASTM D412           Tear Strength         36.0         kN/m         ASTM D412           Tear Strength         38         %         ASTM D3958           70°C, 22 hr         44         %         ASTM D3958           100°C, 22 hr         44         %         ASTM D3958           Injection         Nominal Value         Unit         Unit		Recyclable Material		
Colors Available Natural Color           Processing Method         Injection Molding           Physical         Nominal Value         Unit         Test Method           Density         0.960         g/cm²         ISO 1183           Melt Mass-Flow Rate (MFR) (190°C/50 kg)         3.0         g/10 min         ISO 1133           Hardness         Nominal Value         Unit         Test Method           Shore Hardness (Shore A, 3 sec)         80         Unit         Test Method           Elastomers         Nominal Value         Unit         Test Method           Tonsile Stress¹         4.70         MPa         ASTM D412           100% Strain         4.70         MPa         ASTM D412           Tensile Strength <sup>2</sup> (Break)         8.80         MPa         ASTM D412           Tensile Elongation <sup>3</sup> (Break)         540         %         ASTM D412           Tear Strength         36.0         kN/m         ASTM D412           Tear Strength         38         %         ASTM D3958           70°C, 22 hr         44         %         ASTM D3958           100°C, 22 hr         44         %         ASTM D3958           Injection         Nominal Value         Unit         Unit				
Processing Method         Injection Molding           Physical         Nominal Value         Unit         Test Method           Density         0.960         g/cm³         ISO 1183           Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)         3.0         g/10 min         ISO 1133           Hardness         Nominal Value         Unit         Test Method           Shore Hardness (Shore A, 3 sec)         80         Unit         Test Method           Tensile Stress ¹         A70         MPa         ASTM D412           100% Strain         4.70         MPa         ASTM D412           Tensile Strength ² (Break)         8.80         MPa         ASTM D412           Tensile Elongation ³ (Break)         540         %         ASTM D412           Tear Strength         36.0         kN/m         ASTM D42           Compression Set         KN/m         ASTM D624           Compression Set         %         ASTM D9958           70°C, 22 hr         38         %           100°C, 22 hr         44         %           100°C, 22 hr         44         %           100°C, 22 hr         48         W           100°C, 22 hr         49         W           100°C, 22	Appearance			
Processing Method         Injection Molding           Physical         Nominal Value         Unit         Test Method           Density         0.960         g/cm³         ISO 1183           Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)         3.0         g/10 min         ISO 1133           Hardness         Nominal Value         Unit         Test Method           Shore Hardness (Shore A, 3 sec)         80         Unit         Test Method           Tensile Stress ¹         4.70         MPa         ASTM D412           100% Strain         4.70         MPa         ASTM D412           Tensile Strength ² (Break)         8.80         MPa         ASTM D412           Tensile Elongation ³ (Break)         5.40         %         ASTM D412           Tear Strength         36.0         kN/m         ASTM D624           Compression Set         44         %         ASTM D395B           70°C, 22 hr         44         %         ASTM D395B           10°C, 22 hr         44         %         Testile Strength         Nominal Value         Unit           Unjing Temperature         8.00         °C         Testile Strength         Testile Strength         Testile Strength         Testile Strength         Testile Strength				
Physical         Nominal Value         Unit         Test Method           Density         0.960         g/cm³         ISO 1183           Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)         3.0         g/10 min         ISO 1133           Hardness         Nominal Value         Unit         Test Method           Shore Hardness (Shore A, 3 sec)         80         Unit         Test Method           Elastomers         Nominal Value         Unit         Test Method           Tensile Stress ¹         ASTM D412         ASTM D412           100% Strain         4.70         MPa         ASTM D412           Tensile Strength ² (Break)         8.80         MPa         ASTM D412           Tensile Elongation ³ (Break)         540         %         ASTM D412           Tensile Elongation ³ (Break)         36.0         kN/m         ASTM D42           Compression Set         KN/m         ASTM D3958           70°C, 22 hr         44         %         Test Method           Injection         Nominal Value         Unit         Unit           Drying Temperature         80.0         °C           Drying Time         2.0         hr         Free Compressions (Melt) Temp         170 to 235         °C		Natural Color		
Density         0.960         g/cm³         ISO 1183           Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)         3.0         g/10 min         ISO 1133           Hardness         Nominal Value         Unit         Test Method           Shore Hardness (Shore A. 3 sec)         80         Unit         Test Method           Elastomers         Nominal Value         Unit         Test Method           Tensile Stress¹         4.70         MPa         ASTM D412           100% Strain         5.90         MPa         ASTM D412           Tensile Strength² (Break)         8.80         MPa         ASTM D412           Tensile Elongation³ (Break)         540         %         ASTM D412           Tear Strength         36.0         kN/m         ASTM D624           Compression Set         44         %         ASTM D3958           70°C, 22 hr         38         %         ASTM D3958           Injection         Nominal Value         Unit         Unit           Drying Temperature         80.0         °C           Drying Time         2.0         hr           Processing (Melt) Temp         170 to 235         °C	Processing Method	Injection Molding		
Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)         3.0         g/10 min         ISO 1133           Hardness         Nominal Value         Unit         Test Method           Shore Hardness (Shore A, 3 sec)         80         Unit         Test Method           Elastomers         Nominal Value         Unit         Test Method           Tensile Stress <sup>1</sup> ASTM D412         ASTM D412           100% Strain         4.70         MPa         ASTM D412           Tensile Strength <sup>2</sup> (Break)         8.80         MPa         ASTM D412           Tensile Elongation <sup>3</sup> (Break)         540         % N/m         ASTM D412           Tear Strength         36.0         KN/m         ASTM D412           Compression Set         44         %         ASTM D3958           70°C, 22 hr         44         %         ASTM D3958           Injection         Nominal Value         Unit           Drying Temperature         80.0         *C           Drying Time         2.0         hr           Processing (Melt) Temp         170 to 235         *C	Physical	Nominal Value	Unit	Test Method
Hardness         Nominal Value         Unit         Test Method           Shore Hardness (Shore A, 3 sec)         80         ISO 868           Elastomers         Nominal Value         Unit         Test Method           Tensile Stress 1         ASTM D412         ASTM D412           100% Strain         4.70         MPa         ASTM D412           Tensile Strength 2 (Break)         8.80         MPa         ASTM D412           Tensile Elongation 3 (Break)         540         %         ASTM D412           Tear Strength         36.0         kN/m         ASTM D624           Compression Set         44         %         ASTM D395B           70°C, 22 hr         38         %         ASTM D395B           Injection         Nominal Value         Unit         Unit           Drying Temperature         80.0         °C           Drying Time         2.0         hr           Processing (Melt) Temp         170 to 235         °C           NOTE         **C	Density	0.960	g/cm³	ISO 1183
Shore Hardness (Shore A, 3 sec)         80         ISO 868           Elastomers         Nominal Value         Unit         Test Method           Tensile Stress 1         4.70         MPa           100% Strain         5.90         MPa           Tensile Strength 2 (Break)         8.80         MPa           Tensile Elongation 3 (Break)         540         %         ASTM D412           Tear Strength         36.0         kN/m         ASTM D624           Compression Set         43         %         ASTM D3958           70°C, 22 hr         38         %         ASTM D3958           Injection         Nominal Value         Unit           Drying Temperature         80.0         °C           Drying Time         2.0         hr           Processing (Melt) Temp         170 to 235         °C	Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)	3.0	g/10 min	ISO 1133
Elastomers         Nominal Value         Unit         Test Method           Tensile Stress 1         4.70         MPa           300% Strain         5.90         MPa           Tensile Strength 2 (Break)         8.80         MPa           Tensile Elongation 3 (Break)         540         %         ASTM D412           Tear Strength         36.0         kN/m         ASTM D624           Compression Set         4STM D395B         ASTM D395B           70°C, 22 hr         38         %           100°C, 22 hr         44         %           Injection         Nominal Value         Unit           Drying Temperature         80.0         °C           Drying Time         2.0         hr           Processing (Melt) Temp         170 to 235         °C           NOTE         NOTE         NOTE	Hardness	Nominal Value	Unit	Test Method
Tensile Stress 1         ASTM D412           100% Strain         4.70         MPa           300% Strain         5.90         MPa           Tensile Strength 2 (Break)         8.80         MPa         ASTM D412           Tensile Elongation 3 (Break)         540         %         ASTM D412           Tear Strength         36.0         kN/m         ASTM D624           Compression Set         4STM D3958         ASTM D3958           70°C, 22 hr         38         %           100°C, 22 hr         44         %           Injection         Nominal Value         Unit           Drying Temperature         80.0         °C           Drying Time         2.0         hr           Processing (Melt) Temp         170 to 235         °C           NOTE         **C	Shore Hardness (Shore A, 3 sec)	80		ISO 868
100% Strain       4.70       MPa         300% Strain       5.90       MPa         Tensile Strength 2 (Break)       8.80       MPa       ASTM D412         Tensile Elongation 3 (Break)       540       %       ASTM D412         Tear Strength       36.0       kN/m       ASTM D624         Compression Set       KN/m       ASTM D3958         70°C, 22 hr       38       %         100°C, 22 hr       44       %         Injection       Nominal Value       Unit         Drying Temperature       80.0       °C         Drying Time       2.0       hr         Processing (Melt) Temp       170 to 235       °C         NOTE	Elastomers	Nominal Value	Unit	Test Method
300% Strain       5.90       MPa         Tensile Strength 2 (Break)       8.80       MPa       ASTM D412         Tensile Elongation 3 (Break)       540       %       ASTM D412         Tear Strength       36.0       kN/m       ASTM D624         Compression Set       ASTM D395B         70°C, 22 hr       38       %         100°C, 22 hr       44       %         Injection       Nominal Value       Unit         Drying Temperature       80.0       °C         Drying Time       2.0       hr         Processing (Melt) Temp       170 to 235       °C         NOTE	Tensile Stress <sup>1</sup>			ASTM D412
Tensile Strength 2 (Break)       8.80       MPa       ASTM D412         Tensile Elongation 3 (Break)       540       %       ASTM D412         Tear Strength       36.0       kN/m       ASTM D624         Compression Set       ASTM D395B         70°C, 22 hr       38       %         100°C, 22 hr       44       %         Injection       Nominal Value       Unit         Drying Temperature       80.0       °C         Drying Time       2.0       hr         Processing (Melt) Temp       170 to 235       °C         NOTE	100% Strain	4.70	MPa	
Tensile Elongation 3 (Break)       540       %       ASTM D412         Tear Strength       36.0       kN/m       ASTM D624         Compression Set       ASTM D395B         70°C, 22 hr       38       %         100°C, 22 hr       44       %         Injection       Nominal Value       Unit         Drying Temperature       80.0       °C         Drying Time       2.0       hr         Processing (Melt) Temp       170 to 235       °C         NOTE	300% Strain	5.90	MPa	
Tear Strength       36.0       kN/m       ASTM D624         Compression Set       ASTM D395B         70°C, 22 hr       38       %         100°C, 22 hr       44       %         Injection       Nominal Value       Unit         Drying Temperature       80.0       °C         Drying Time       2.0       hr         Processing (Melt) Temp       170 to 235       °C         NOTE	Tensile Strength <sup>2</sup> (Break)	8.80	MPa	ASTM D412
Compression Set         ASTM D395B           70°C, 22 hr         38         %           100°C, 22 hr         44         %           Injection         Nominal Value         Unit           Drying Temperature         80.0         °C           Drying Time         2.0         hr           Processing (Melt) Temp         170 to 235         °C           NOTE	Tensile Elongation <sup>3</sup> (Break)	540	%	ASTM D412
70°C, 22 hr       38       %         100°C, 22 hr       44       %         Injection       Nominal Value       Unit         Drying Temperature       80.0       °C         Drying Time       2.0       hr         Processing (Melt) Temp       170 to 235       °C         NOTE	Tear Strength	36.0	kN/m	ASTM D624
100°C, 22 hr44%InjectionNominal ValueUnitDrying Temperature80.0°CDrying Time2.0hrProcessing (Melt) Temp170 to 235°CNOTE	Compression Set			ASTM D395B
InjectionNominal ValueUnitDrying Temperature80.0°CDrying Time2.0hrProcessing (Melt) Temp170 to 235°CNOTE	70°C, 22 hr	38	%	
Drying Temperature80.0°CDrying Time2.0hrProcessing (Melt) Temp170 to 235°CNOTE	100°C, 22 hr	44	%	
Drying Time 2.0 hr Processing (Melt) Temp 170 to 235 °C NOTE	Injection	Nominal Value	Unit	
Processing (Melt) Temp 170 to 235 °C  NOTE	Drying Temperature	80.0	°C	
NOTE	Drying Time	2.0	hr	
	Processing (Melt) Temp	170 to 235	°C	
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